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ABSTRACT

Designed for 11th grade U.S. history students, the teaching unit combines the history of the U.S. Capitol building and its Greek and Roman revival architecture to tell the story of the nation's government buildings. While the unit uses the U.S. Capitol, any other public building could be used, such as a state capitol, court house, or public library. Six lessons help students: (1) begin intensive study of the U.S. Capitol, (2) learn about the history of the capitol, (3) learn about styles of architecture, particularly Greek and Roman styles, and elements of those styles, (4) get acquainted with the federal part of Washington, D.C. (5) increase awareness through an on-site field trip, and (6) summarize architectural and historical knowledge of the U.S. Capitol. The unit includes lesson descriptions, suggested materials, quizzes, homework assignments, a sample time line, architectural handouts, bulletin board displays, sketches, floor plans, maps, and a field trip schedule. Appendices give suggestions on where to use the unit and a glossary of architectural terms. (LH)

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# THE CAPITOL EXPERIENCE IN WASHINGTON, D.C.

By

R. Anne Dilworth

SP 015 229

Arlington Public Schools

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Thanks and appreciations to Renee A. Dunbar, Secretary to the project, and to Eloise Austin who prepared the preliminary and final manuscripts of the units.

Our special thanks to the staff at the National Endowment for the Humanities for their support to the project.

# HISTORY BY THE BLOCK

**Arlington Public Schools • 1426 N. Quincy Street Arlington, Virginia 22207**

## Project Description

HISTORY BY THE BLOCK is an educational design seeking to strengthen the teaching of history in the Arlington Public Schools by focusing attention on the role of architecture and the design process in American social history. The program will also focus attention on the redevelopment that is taking place in Arlington at the present time, and will help students understand that what is being built in Arlington at the present time will be left to future generations as a record of our society. In looking at the past in our country, students will be able to discover that buildings are as much a record of the past as any other historical evidence and reveal the tastes and values of a particular time.

## Plan of Action

Teacher workshops were held during the summers of 1982 and 1983 to familiarize teachers with architectural concepts and the design process as it fitted into social history. The workshops were followed by writing sessions which translated concepts learned into units of study at several elementary and secondary levels in history and social studies courses. The units written during the summer of 1982 were piloted by several teachers during the 1982-83 school year. They were then evaluated and revised during the summer of 1983. During the same time period experiences in architecture and social history were provided as an inservice program for a much wider group of teachers. The units will be published and distributed widely during the fall of 1983 to all interested teachers.

## Curriculum Units

The following units were produced by the project:

| Grade Level | Title |
|---|---|
| 4-5 | What Did It Look Like Then?<br>Eighteenth Century Architectural Elements |
| 7-8 | Freedman's Village: Arlington, Virginia<br>1863-1900 |
| 7-8 | Block Study: Learning About Your Local Community |
| 7-8 | If These Walls Could Talk!<br>The Story of Arlington House Before the Civil War |
| 11 | The Capitol Experience in Washington, D.C. |



Supported by a grant from the National Endowment for the Humanities, ES-1930-81

Each unit includes lesson descriptions and teacher and student materials needed for teaching/learning. In addition, all the visuals and sources are included. While the units use local Arlington sites and may be construed as local history, the concepts of the units may be adapted to any location. In addition, the units on Arlington House (Custis-Lee Mansion in Arlington National Cemetery) and Freedman's Village in the same location, and on the U.S. Capitol have national significance. The two units on Arlington House and Freedman's Village together provide a unique way to look at the Civil War period. The Freedman's Village unit opens up a long neglected aspect of local and national Black history.

## Skills To Be Learned

Students learning from these units can be expected to acquire the following skills:

1. Be able to identify the major architectural styles used in American towns and cities and understand the historical reasons for the popularity of these styles.

2. Understand the interrelationship between architecture and design and the social history in the growth of American communities.

3. Be able to use the study of architecture as a tool to unlock historical information using visual literacy and critical thinking skills.

4. Understand the ways in which the use of space affects the way people live and work.

5. Understand the forces (political, social, economic) within a community which determine how space within that community is used, and how historically, these forces have been influenced.

## The Results

This unit, The Capitol Experience in Washington, D.C. combines the history of the U.S. Capitol and its Greek and Roman revival architecture as a symbol of our government. Written by R. Anne Dilworth, social studies teacher at Wakefield High School, who wrote the unit to meet requirements at 11th grade American history. The unit has equal appeal as a study of history and monumental architecture in the U.S. at almost any level of study. Combined with a visit to the site, the architectural features of the Capitol reveal as much to students as does the history of the U.S. Capitol.

Martha Swaim, Project Coordinator
Seymour B. Stiss, Project Director

September, 1983

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The Capitol Experience in Washington, D. C.

The purpose(s) of this unit are as follows:

1. Through reading and answering questions, trace the history of the U.S. Capitol from 1800 to present.

2. Through reading printed materials, photographs and slides, identify and be able to recall the basic elements of Classical architectural style represented on the U.S. Capitol.

3. Supply information learned from above to the ideas presented in Tom Lowderbaugh's article, "How Public Buildings Stand on Ceremony,"* and to be able to describe, in writing, what the U.S. Capitol is "saying."

The U.S. Capitol was chosen as the building to study because it makes a very strong statement to all who see it. The building is recognized around the world, not only as a fine example of Federal and Classical architecture, but also the U.S. Capitol is a symbol of the Government of a democratic society in the free world. Leaders meeting within its walls make decisions which affect all parts of the world.

The Capitol was chosen also because Arlington, Virginia and Washington, D.C. are minutes apart by public or private transportation, making a field trip possible. Students need to be able to see the building they are studying, get close enough to touch it, and even take photographs of it. On the way home, you can extend the learning activity, at least in D.C., by having them identify the elements of style they just saw on the Capitol and on other public, and government buildings.

Any other public building could be used, perhaps your state capitol, court house or public library. Please keep in mind that the field trip is necessary; choose accordingly. The architectural style of the building and elements specifically belonging to it can be determined by reading the books in the bibliography. A local historical society might have a pamphlet describing the history of the building. Public records may have information such as cost, architect, etc. Perhaps a local citizen could recall the actual building process if he/she were there.

*Art to ZOO, News for Schools from the Smithsonian Institution, Dec. 1981, pp. 2-3

## The Capitol Experience in Washington, D.C.

Lesson #1

Goal: To have students think about buildings and begin intensive study of the U.S. Capitol.

Objectives:
1. Students will determine the definition of the word "building."
2. Students will identify various kinds of buildings.
3. Students will draw, evaluate, describe and relate to buildings that are familiar to them.
4. Test their knowledge of a specific building - the U.S. Capitol.

Materials: Class set of The Capitol, a Pictorial History of the Capitol for each student
Your descriptive paragraph of U.S. Capitol
Example of a timeline
Pre-test on Capitol
Answers to Pre-test

| Teacher | Student |
|---|---|
| Either through writing the definition or asking for answers from class, the word building is defined and written on board. | Students acknowledge and write or give suggestions and write the definition in their notebooks. |
| What kinds of buildings are there? Teacher writes answers given on the board. | Students answer - houses, churches, schools, apartments, stores, factories, MacDonalds, office buildings - they may also answer - square, round, tall, rectangular. |
| Ask students in class to think about the houses and buildings in their neighborhood or Arlington. Pick one which has made an impression on them and sketch it on a piece of notebook paper. | Think, then sketch drawing. |
| As students complete drawings, ask 5-10 of them to tape their drawings on the blackboard. | Students tape up sketches. |
| Ask class members if they can identify the buildings that have been drawn and write names of building under drawings. | Students reply with names of buildings drawn by classmates. |

| Teacher | Student |
| --- | --- |
| Ask students to tell why these buildings were chosen. Ask about 5-8 people, writing reasons on blackboard, until you get 3-5 different answers. | Students answer. |
| Ask for oral description of one of these mentioned buildings without naming the building.<br>Ask for identification. | Another student identifies building. |
| Teacher asks, "Could the description be better given and understood if we all knew some architectural terms?" Can we agree that some buildings leave an impression on us?" | Students answer. |
| Drawing from your own experience, write a list of 5 buildings in the U.S. which you feel would leave an impression and everyone should be able to recognize by sight or description. Write your list in your notebook. (Make a list yourself - to read later).<br><br>Note to Teacher: The list of buildings could depend upon which part of the U.S. you reside in and where your students have traveled. The U.S. Capitol will most likely appear on someone's list; if not, make sure it is on your list when you read it to the class. | Students list.<br>List could include Monticello, White House, Empire State Building, Astro Dome, Washington Monument, Mt. Vernon, World Trade Buildings, Independence Hall, Arlington House, Lincoln and Jefferson Memorial, Alamo, Dulles Airport, Sears Building in Chicago, U.S. Capitol, Smithsonian Inst. |
| Ask 5-8 students for the names of buildings from their list. These are listed on the board. Place a checkmark next to those that are repeated on different lists. Then circle 3-4 of those which were most frequently mentioned. | Students reply. Answers will vary. |
| Ask students to give reason why these buildings were selected. | Students answer. |
| Now, have students write a descriptive paragraph about one of the buildings circled on board without mentioning the building in the paragraph (3-4 minutes). | Students write descriptive paragraph. |
| Ask 3-5 volunteers to read their paragraphs. Some students will identify the building being described immediately. Other buildings may not be identified. Some students will use architectural terms they know to describe the building. Hopefully, someone will write a description of the U.S. Capitol, and it | Students read paragraphs and classmates try to identify buildings. |

| Teacher | Student |
| --- | --- |
| will be identified. If not, read the following and ask for identification of the building. Teacher reads: "The magnificant western facade is approached from the city by terraces and steps of bolder proportions than I ever before saw. The elegant eastern front, to which many persons give the preference, is on a level with a newly-planted, but exceedingly handsome enclosure, which in a few years will offer the shade of all the most splendid trees which flourish in the Union..." (Stated by Mrs. Frances Trollope, English Visitor, 1830's). | Students reply with answer to quote (U.S. Capitol). |
| Now, tell them that you have chosen the U.S. Capitol as a building you feel is important for them to recognize, know something about its history and be able to describe its features in a way that will make people stop and listen because they will know the correct words to use. | Students listen. |
| Distribute the short pre-test on the U.S. Capitol. Give 5-8 minutes to complete. Teacher collects papers - saves for later date - asks if there are any questions which they couldn't answer. | Students answer test questions.<br>Students ask - answers will be learned shortly! |
| Then describe the rest of the unit to them, i.e., Gaining Knowledge on History of U.S. Capitol, learning the elements of style of classical architecture through vocabulary sheet, slides and a field trip to Capitol. Experiencing reading a building because you are actually standing next to it and getting feelings and ideas about what the building really is. | Students listen. |
| Pass out book on The Capitol and homework assignment. Remind how to do timeline. | |
| Homework Assignment - Read pp. 6-14; then make a timeline illustrating 10 important facts/dates. | |

THE CAPITOL EXPERIENCE IN WASHINGTON, D.C.

Use on Lesson #1

Pre-Quiz Capitol - How much I do know!

1. When was the U.S. Capitol built?
2. Who was the architect?
3. Where is the Capitol? Address/location.
4. What is the outside building material?
5. Why was the U.S. Capitol built?
6. The Capitol compares in size to_____football fields?
7. How much did the Capitol cost to build?
8. Does the Capitol have a basement? An attic?
9. Draw the basic shape of the Capitol if you were standing in the east parking lot looking at Capitol.
10. What is the architectural style or design of the U.S. Capitol?
11. The Capitol reminds me of _____.

Write your answers to the above with the best of your knowledge/ability. Try to remember the last time you were at the Capitol - when was it?

---

12. P.S. What else I know about the Capitol; you didn't ask!

    a.

    b.

    c.

    d.

Answers to Pre-Test - Lesson #1

1. It was started in 1793 and has had additions built since that time. The latest architectural change to the Capitol was completed in 1960 when the east extension was finished.

2. There is no one architect. Over the years many people have had a hand at the design. Some of them were architects, some were not. Thornton, Latrole, Bulfinch, Walter, Clark, Woods, Lynn, Stewart and White are the men who have been appointed the Architect of the Capitol by various Presidents of the U.S. Currently, George M. White is Architect of the Capitol, appointed by Nixon in 1971.

3. The U.S. Capitol is located in Washington, D.C. on a site that extends from Constitution to Independence Avenues and 1st Street.

4. The outside building material is sandstone - much of it from Aquia, Va., and marble from Massachusetts and Maryland.

5. The Capitol was built as a meeting place for the Legislative branch of the U.S. Government, and for the Supreme Court. Today, just the Legislative branch meets here to decide the laws of U.S.

6. The Capitol compares in length to two football fields placed end to end, and about one football field wide.

7. Total cost is unknown. However, by 1830 approximately two million.

8. The Capitol has a basement and an attic.

9. The basic shape is rectangular with 2 wings perpendicular to the main at the ends. There is a dome on top of the center section.

10. The Capitol reflects a Classical style with Federal overtones and Pallodium influence.

11. Answers will vary. Greek temple, Louvre, Church...

12. Answers will vary.

Lesson #1 - Homework Assignment

Read, then Write.

Illustrate 10 important facts/dates in the life of U.S. Capitol on a timeline from 1792-1850. Be able to support your choices with evidence from what you read.

SAMPLE Timeline U.S. Capitol: 1792-1850

1792 ———Thornton wins $500.00 to design U.S. Capitol

1793-Washington lays Cornerstone

1800 ——Congress in one wing of the building

1810 ———

1814-Capitol & White House burnt by British during attack on Washington in 1814

1820 ———

1829-Bulfinch sees Capitol complete as designed

1830 ———

1835-Visitor to D.C. awed by grandeur of Capitol

1840 ———

1844-Telegraph demonstrated in House

1850 ———

The Capitol Experience in Washington, D.C.

Lesson #2

Goal: To have students learn about the history of the U.S. Capitol

Objective: To gain more knowledge about the history and architectural growth of the U.S. Capitol from 1850 - present through reading and answering questions from The Capitol, Architects of the Capitol, through use of primary source material from Architect of the Capitol office, copies of Congressional proceedings, letters, and photos.

Materials:
- Question sheet on history of Capitol from 1850 - present. Use with The Capitol and "Architects" pamphlet.
- Large copy of questions most missed on pre-test to hang on bulletin board
- Prints of the Capitol in early building stages, Congressional Records - building records, letters from architect to Congress, fact sheets from Architect's office - on bulletin board
- Homework assignment - questions and pamphlet on (Architecture of the United States Capitol"
- Booklet, The Capitol, a pictorial history...

| Teacher | Student |
|---|---|
| Collect and go over homework - timelines; compare and evaluate importance of information stated on a selected number of timelines. | Students reply. |
| Students have rest of period to use bulletin board and booklet to answer questions on study sheet and find answers to yesterday's pre-test. | Students work quietly. |
| If time permits, go over answers to the questions - if not, save until tomorrow. | Students answer. |
| Hand out homework assignment - questions taken from pamphlet, "The Architecture of the United States Capitol." | Students take home and complete. |

Questions on History of the U.S. Capitol (use bulletin board, Architect's pamphlet and booklet, The Capitol for your answers)

1. Describe the architectural changes that were made on the U.S. Capitol from 1850-1900. Who was the architect in charge? Why were these changes necessary?

   Answer: The building was enlarged by adding two wings which were designed by Thomas U. Walter of Philadelphia. The wings for the House and Senate were necessary because Congress had outgrown the space in the original building.

   The small Bulfinch dome was replaced by a much larger one - more in scale to the rest of the building. The dome was styled after the domes of St. Peter and St. Paul Cathedrals in Rome and London, respectively.

   The statue of "Freedom" by Thomas Crawford was placed on top of the dome in 1863 - something representative to "top off" the dome.

   Inside - because the House had a new chamber, their old chamber was turned into Statuary Hall. A room where you can view statures from each state of persons who they decided should be remembered in stone there for all to see.

   Inside - much decorative art work was completed by Constantino Brumidi, a most talented painter. The inside of the dome also boasts some of his work.

   By 1865, plumbing, heating and forced ventilation were introduced. First elevator operated in 1874. By 1881 - building fireproofed better.

   1900 - the Capitol was wired for electricity. Capitol lost some fireplaces for fear of explosion - too much sewer gas in building.

   The acreage around the Capitol was increased and the lawns planted with trees and shrubs. Terraces.

   Re-constructed and repaired Old Supreme Court Section - fire/explosion in Section in 1898.

   Wood - arch - subway, more moderizing Capitol: heating, lighting, ventilation.

   Lynn - Capitol grounds.

   J. George Stewart - Prayer Room for Congressmen-extended East Central Front Section-re-habilitated the Dome, more/better lighting inside and outside - plans for West Central front.

George Malcolm White - current Architect of the Capitol.
- modified passageways, handicapped ramps.

2. From 1860-65, what changes other than architectural could be seen at the Capitol?

   Answer: Soldiers on the grounds, used as hospital, bread baked in basement, storeroom for military supplies.

3. Page 17: What did Lincoln mean by this statement, "If the people see the work of the Capitol going on, it is a sign that we intend the Union should go on."

   Answer: Will vary - the sign in D.C. is that the Union is still a Union.

4. Using pp. 20-33 or 42-48 as your visual evidence, make suggestions as to how parts of the Capitol could be used to teach U.S. History.

   Answer: Page 22 - large paintings in Rotunda show events from American history.

   Page 23 - important politicians from the House could be spoken about as you gazed at his portrait in the Speakers' lobby.

   Page 22 - importance religion holds in early beginning of our country's history - and its importance today to members of Congress.

   Page 30 - the frieze on the wall behind the bar in the Old Supreme Court Chamber indicates a former use of the room - explain how role of the Courts in our system of checks and balances.

   Page 31 - engraving - show dress of years gone by - prove interest in proceding at Capitol - numerous spectators in the gallery. Explain the word compromise and its use in our government, and tell the story of the Great Compromiser himself - Henry Clay.

   Page 42 - example of Benj. Latrobe's American Capitol - corn cobs - tell the agricultural importance of corn to early settlers and today.

   Page 43 - more paintings which show early history - make up the proper story for each.

   Pages 44, 45 - Show art work completed by Brumidi, an Italian immigrant who was so enthrolled with his adopted country that he couldn't do enough. He spent his remaining years painting the interior of the Capitol with American wildlife, inventions, portraits.

   Pages 46, 47 - paintings of important dates in American History - you could tell about the event, talk about the people.

Page 48 - Capitol doors show the life of Christopher Columbus.

5. Extra Credit - read some more and write about Constantino Brumidi. Why did he give so much to his adopted country?

6. The "Lawgivers" - pps. 52-55 - from your knowledge of American History and Word History - list 5 of these lawgivers and tell why you feel they are more important to our democratic ideals than the others. What is the House of Representatives main responsibility.

   Answer: Will differ on 1st - make laws on second.

These questions to be answered in class.

After these are complete - see if they can find answers to those question on the pre-test which were unknown to many people. Check bulletin board. Students check board for answers.

Lesson #2 - Homework

Please answer the following questions from the pamphlet, "The Architecture of the United States Capitol" and keep them in your notebook.

1. Where did the idea for the style of the architecture for the U.S. Capitol originate? Why was this style adopted?

2. Name four (4) men who were connected with the architectural development of the U.S. Capitol. Tell what each contributed to the building.

3. From the pamphlet, make a list of twelve (12) words which obviously deal with architecture.

4. Name two (2) other buildings which seemed to have had an effect on the architecture of the U.S. Capitol.

5. Who is responsible for the information in this pamphlet?

Possible answers

1. The architecture of the U.S. Capitol is based on the Classical style which was affecting architecture in Western Europe and also America. The Classical style was appropriate since our government is based on principles of Roman Republic Classical periods and study of ancient Greece and Rome.

2. Dr. Thornton - original designer of U.S. Capitol. Benj. Latrobe and Charles Bulfinch gave guidance in a style that today is known as architecture of the Federal period. Thomas U. Walter - House and Senate wings and connecting corridors.

3. Words are:central rotunda, columns, capitols, pilasters, base, entablature, Palladian Concept, Corinthian order, pediment, facade, porticos, stonework, balaistrade.

4. The Louvre, Versailles, parts of Hampton Court, and the dome of St. Paul all influenced the design of the U.S. Capitol.

5. The Art and Reference division of the Architect of the Capitol is responsible for the pamphlet.

THE ARCHITECT OF THE CAPITOL
1793
Washington, D.C. 20515

# THE ARCHITECTURE OF THE UNITED STATES CAPITOL

The architecture of the United States Capitol is based on the classical tradition which affected the evolution of Western European architecture as late as the first half of the 19th Century. In some directions, this Renaissance represents a reaction against other styles and in all directions, it was promoted by a study of antiquities and by the discovery of the distinctions between Greek and Roman art.

At the close of the Revolution, the United States was in immediate need of Government buildings. That they should have been designed in the Classical style follows naturally from the wide acceptance of European architectural trends in America, and in view of the opinion then current among the Nation's founders that the new Government of the United States was based on the principals of the Republic of Rome. Europe was enjoying a definite trend toward simplicity in art, and this influence in design provided direct inspiration to architects in America.

The original design by Dr. William Thornton, a physician and self-taught architect, attests to his knowledge of architectural history and the architecture of his own period gained from wide travel, study and observation. The Thornton design follows the Palladian concept, with a central rotunda and a dome reminiscent of the Pantheon in Rome. For his design, Thornton chose the Corinthian order for columns and capitals, pilasters, bases and entablature. Subsequent modifications by Benjamin Henry Latrobe and Charles Bulfinch give the architecture a unique quality and reflect the beginnings of what came to be known in America as the architecture of the Federal Period, and which is directly related to the styles of the Directoire and the Empire.

During the middle of the 19th Century, the present Senate and House Wings and connecting corridors were designed and built under the direction of Thomas U. Walter. Also, the original low wood and copper dome, which had been modified by Bulfinch was replaced by a much higher Walter design executed in cast iron to simulate the stone domes of the Renaissance. Its double shell construction is reminiscent of the first such application of that building principle, Santa Maria dei Fiori in Florence. Walter continued the precedent of using the Corinthian order

established in the original building, and as each of the earlier architects had slightly modified the detail of the order, so did Walter, with the result that the building contains four variations of the Corinthian order.

The façade of the original portion presents a severely formal application of pilasters, columns, entablature and pediment. Walter's designs for the wings and the dome, on the other hand, are characterized by a multiplication and elaboration of features.

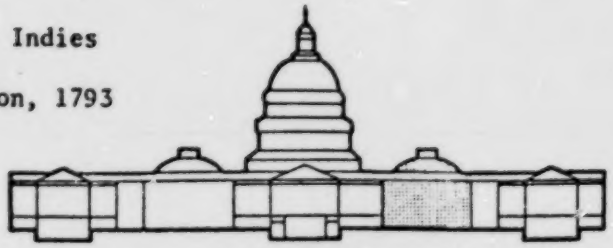
The general ordonnance consists of a ground story of rusticated stonework superimposed by a two-story classical treatment of the Corinthian order in the form of columns on the porticos and pilasters on the main curtain walls, all capped by an entablature, a balustrade or pediment. The entire composition is crowned by the dome, with a peristyle of columns also of the Corinthian order, which has become the symbol of the city and the nation. The greatest features are the splendid ranges of porticos of freestanding columns which adorn all the fronts, especially the eastern and the magnificent flights of steps that lead up to them.

There are few buildings erected in modern times which possess to a greater extent than the Capitol, appropriateness of purpose combined with the dignity necessary for the center of Government.

The Capitol, as it stands today, is clear evidence of the early architects familiarity with earlier monuments in architecture. Significant would be the Campidoglio and palaces of Rome, the villas of Florence, Verona and Vicenza, the east facade of the Louvre, the Invalides and the Chamber of Deputies in Paris, Versailles and portions of Hampton Court, the domes of Santa Maria dei Fiori, St. Isaac's, St. Paul, and the Banqueting Hall at Whitehall -- all of which, no doubt, influenced the design of the Capitol.

July 1979
Art and Reference Division

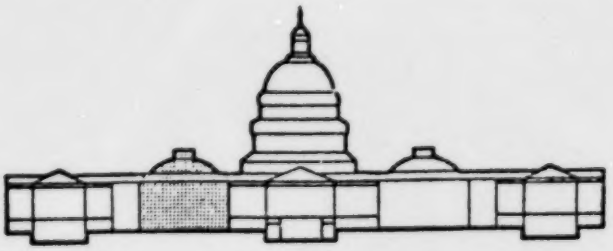
## WILLIAM THORNTON



Born May 20, 1759, Jost van Dyke, West Indies
Died March 28, 1828, Washington, D.C.
Appointed by President George Washington, 1793
Resigned September 12, 1794

Early schooling in Lancashire, England. Spent 3 years at University of Edinburgh studying medicine. Graduated in 1784 with M.D. from Aberdeen University. Co-experimented with John Fitch in designing a steamboat. Self-taught architect and portrait painter.

Won the competition for designing the United States Capitol in 1793. As Architect, supervised the beginning construction of the original North or Senate wing. Appointed as one of three District Commissioners, he continued supervising construction of the Capitol. Superintendents during this period were Stephen Hallet, James Hoban and George Hadfield.



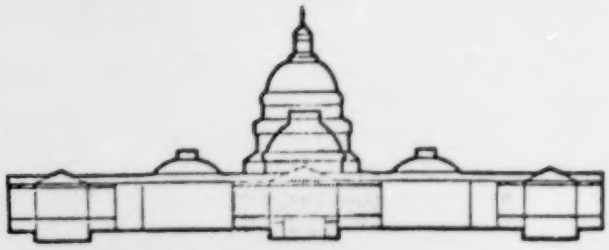
## BENJAMIN HENRY LATROBE

Born May 1, 1764, England
Died September 3, 1820, New Orleans, Louisiana
Appointed by President Thomas Jefferson March 6, 1803 - resigned July 1, 1811
Appointed by President James Madison April 6, 1815 - resigned November 20, 1817

Classic education at Fulneck School, Yorkshire, England. Entered college at Niesky and tradition says he also studied 3 years at University of Leipzig. Studied engineering with John Smeaton and entered the office of S. P. Cockerell, architect. Fellow of the American Philosophical Society; member of American Antiquarian Society and Philadelphia Academy of Arts; vice president of Society of Artists of the United States; honorary member of Academy of Arts; member of Chemical Society of Philadelphia.

Constructed the original House wing and remodeled the interior of the original Senate wing; after the fire of 1814 he redesigned and constructed the interiors of both wings, now Statuary Hall and the Old Senate Chamber.

#2 - Architects of the Capitol



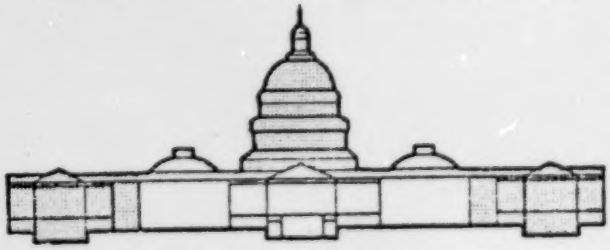
CHARLES BULFINCH

Born August 8, 1763, Boston, Mass.
Died April 15, 1844, Boston, Mass.
Appointed by President James Monroe January 8, 1818
Office abolished June 25, 1829

Classic education at Latin School and graduated from Harvard in 1781. Studied architecture in Europe and devoted himself seriously to the study of architecture to become New England's leading architect. Member of the National Academy of Design. One of the first American born architects of distinction.

Constructed the center section and the original low wooden dome of the Capitol. His design also extended the West Front from that planned by Latrobe. He planned the landscaping and the original earthen west terraces.

From 1829 to 1851 there was no Architect of the Capitol because the office had been abolished. Necessary services were performed by the Commissioner of Public Buildings and Grounds until 1836 when the Architect of Public Buildings, Robert Mills, was put in charge of maintenance. He was never Architect of the Capitol.



THOMAS USTICK WALTER

Born Sept. 4, 1804, Philadelphia, Pa.
Died Oct. 30, 1887, Philadelphia, Pa.
Appointed by President Millard Fillmore June 11, 1851
Resigned May 26, 1865

Apprenticed as a young boy to his father who was a bricklayer and mason. Strong education in mathematical studies, physical sciences, cultivation of the arts of drawing and painting, and practical knowledge of mechanical construction. Student of architecture and mechanical drawing in the office of William Strickland. Became a practicing architect in 1830. Sent to Europe by the Building Committee of Girard College to study building improvements in general. One of the founders of the American Institute of Architects and its second president; member of Franklin Institute of Pennsylvania and American Philosophical Society; honorary M.A. from Madison University in New York, 1849; Ph. D. from University of Lewisburg, Pennsylvania in 1853; and LL.D. from Harvard, 1857.

Won the competition for the design to extend the wings of the Capitol and executed this work; was architect for the present high, iron dome; reconstructed interior of west center building to provide for the Library of Congress after the fire of 1851. Made first studies for extending the East and West Central fronts of the Capitol.

EDWARD CLARK

Born August 15, 1822, Philadelphia, Pennsylvania
Died January 6, 1902, Washington, D.C.
Appointed by President Andrew Johnson August 30, 1865
Died in office January 6, 1902

Studied freehand and mechanical drawing under his architect father, James Clark. Received special training in engineering from his uncle, Thomas Clark, an Army engineer. Student of Thomas U. Walter, and under him was made superintendent of construction on the Patent Office and Post Office in 1857 and assistant to Walter in adding the wings and dome to the Capitol. Fellow in American Institute of Architects and well known in many scientific, literary and musical societies.

Oversaw completion of the porticoes of the new wings; reconstructed the Old Hall of Representatives for use as Statuary Hall; extended Capitol Grounds and built present granite terraces; reconstructed and repaired Old Supreme Court section after explosion and fire of 1898; replaced gas with electricity; reconstructed west central floors vacated by Library of Congress when it moved to its present building in 1897; supervised installation of elevators, fireproofing, incandescent lights, modernized heating and ventilating.

ELLIOTT WOODS

Born February 2, 1865 near Manchester, England
Died May 22, 1923, Spring Lake, New Jersey
Appointed by President Theodore Roosevelt February 19, 1902
Died in office May 22, 1923

Educated in Indianapolis, Indiana. Associated with Architect's office 17 years prior to his appointment as Architect. Also served as architect or associate architect in the erection of public buildings in Washington, D.C. Deeply interested in scientific pursuits, he became known for his work in X ray and radio and telegraphy. Member of American Institute of Architects.

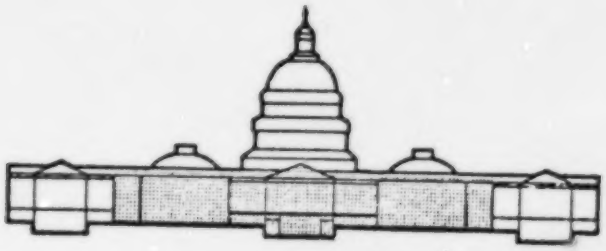
Oversaw the erection of the first House and Senate Office Buildings and subways; built the Capitol Power Plant; added 5th floor to Cannon House Office Building; built 28 rooms in the space formerly occupied by the Library of Congress in the Capitol; made significant changes in lighting, heating and ventilating.

DAVID LYNN

Born November 10, 1873, Wheeling, West Virginia
Died May 25, 1961, Washington, D.C.
Appointed by President Calvin Coolidge August 22, 1923
Retired September 30, 1954

Educated in public schools of Cumberland, Maryland and the Allegheny County Academy. Entered the Office of the Architect under Edward Clark and became 7th Architect of the Capitol 21 years later upon the death of Elliott Woods. Honorary member of American Institute of Architects.

Responsible for construction of the Longworth House Office Building; U.S. Supreme Court Building; Library of Congress Annex; First Street wing of the Old Senate Office Building; built the Senate Garage and expanded the Capitol Grounds; added to the power plant; remodeled the Senate and House Chambers; constructed the Botanic Garden Conservatory; and began construction of the New Senate Office Building.



J. GEORGE STEWART

Born June 2, 1890, Wilmington, Delaware
Died May 24, 1970, Washington, D.C.
Appointed by President Dwight D. Eisenhower October 1, 1954
Died in office May 24, 1970

Early schooling in Wilmington; engineering degree from University of Delaware; licensed professional engineer, State of Delaware; president of his own general construction firm; Representative in Congress, 1935-37; Clerk of the District of Columbia Committee, U.S. Senate; engineer consultant to Lands Division, Department of Justice, and Corps of Engineers. Honorary member of American Institute of Architects, honorary fellow American Registered Architects.

Continued the work of his predecessor in construction of New Senate Office Building and connecting subways; continued improvements and expansion of the power plant; approved plans for Taft Memorial and bell tower; prepared the Prayer Room for Congressional use; extended East Central Front of the Capitol and rehabilitated the Dome; responsible for construction of Rayburn House Office Building, connecting subway and the House underground garages; remodeled Cannon House Office Building and prepared plans for full remodeling of Longworth House Office Building; purchased additional properties for enlarging Capitol Grounds on both Senate and House sides; initiated improved interior and exterior lighting of the Capitol; responsible for preliminary plans for the James Madison Memorial Library of Congress Building and extension of the West Central Front of the Capitol.

GEORGE MALCOLM WHITE

Born November 1, 1920, Cleveland, Ohio
Appointed by President Richard M. Nixon January 27, 1971

Graduate of Massachusetts Institute of Technology with a B.S. and M.S. in Electrical Engineering; M.B.A. Harvard; J.D. Case Western Reserve; Registered Architect in Ohio and District of Columbia; Registered Engineer in Ohio, Massachusetts and District of Columbia; member of Bar of Ohio and District of Columbia and the Supreme Court of the United States; certified by the National Council of Architectural Registration Boards and National Council of Engineering Examiners.

A former electronics design engineer; has practiced as an architect and consulting engineer since 1948 and as a lawyer since 1960; former member of the faculty at Case Western Reserve in physics and architecture; chief executive officer of various business organizations of his own at the time of appointment.

Fellow of American Institute of Architects and former Vice President, board member and chairman of various committees; member of National Panel of Arbitrators of the American Arbitration Association; member of National Society of Professional Engineers; member of American Bar Association; and Gold Medalist of Architects Society of Ohio.

Ex-officio, a member of the Zoning Commission of the District of Columbia, the U.S. Capitol Police Board, and a Director of the Pennsylvania Avenue Development Corporation. Acting Director of the U.S. Botanic Garden.

Responsible for construction of the James Madison Memorial Library of Congress Building; restoration of Old Supreme Court and Old Senate Chambers in the Capitol; design of the extension to the Dirksen Office Building; expansion program for the Capitol Power Plant; space studies of Senate and House facilities; master planning efforts for Capitol Hill; alterations to buildings on Capitol Hill to provide barrier-free design for the handicapped; modification of two passageways on House side of Capitol; revisions to interior of Supreme Court building.

## DATA RELATING TO U. S. CAPITOL BUILDING

| | |
|---|---|
| Length of Capitol | 751' 4" |
| Width of Capitol through wings | 350' |
| Height of Statue of Freedom above east base line of Capitol | 287' 6" |
| Height of Statue of Freedom | 19' 6" |
| Statue placed in position | Dec. 2, 1863 |
| Weight of Statue | 14,985 lbs. |
| Height from Rotunda floor to canopy | 180' 3" |
| Number of steps from Pennsylvania Avenue walk, west plaza, to dome | 464 |
| Weight of dome | 8,909,200 lbs. |
| Diameter of Rotunda | 95' |
| Area of floors of Capitol (over 14 acres) | 627,334 sq. ft. |
| Number of rooms in Capitol | 450 |
| Cubic Contents | 19,613,550 |
| Cost of Capitol to 1958 | $15,000,000 |
| Corner stone of Capitol laid | Sept. 18, 1793 |
| Corner stone of extensions laid | July 4, 1851 |
| Windows in the Capitol | 658 |
| Doorways in the Capitol | 850 |
| Fire places in the Capitol | 140 |
| Ventilating fans | 15 |
| Motors | 18 |
| Elevators | 11 |
| Sq. ft. of skylights formed of iron and glass | 14,518 |
| Area of Capitol Building | 16 ½ acres |
| Central portion old Capitol commenced | 1818 |
| Central portion old Capitol completed | 1829 |
| North wing, old bldg., completed | 1800 |
| South wing, old bldg., completed | 1811 |
| Capitol burned by British | Aug. 24, 1814 |
| Present House Chamber first occupied | Dec. 16, 1857 |
| Present Senate Chamber first occupied | Jan. 4, 1859 |
| Old Supreme Court Room occupied by Court | 1860 |
| Seating of House galleries | 616 |
| Seating of Senate galleries | 682 |
| Height of east plaza above Potomac river | 88' |

## U. S. CAPITOL

Original Capitol as completed - Built of Aquia Creek (Va.) sandstone, procured from quarries owned by Government.
352'4" in length
229' depth
$2,433,844.13 - Cost, including grading of grounds, repairs, etc., up to year 1827.

Area covered by Grounds - 58.8 acres; 10.33 acres of cement sidewalks; 8.65 acres asphalt driveways.

Area covered by Building (at present) - 3½ acres; floor area, 14 acres; 430 rooms; 14,518 sq. ft. skylights; 679 windows; 550 doorways.

Length of building - 751'4"

Width of building (inc.approaches) - 350'

Height of building - 287'5½", east front to top of Statue of Freedom.

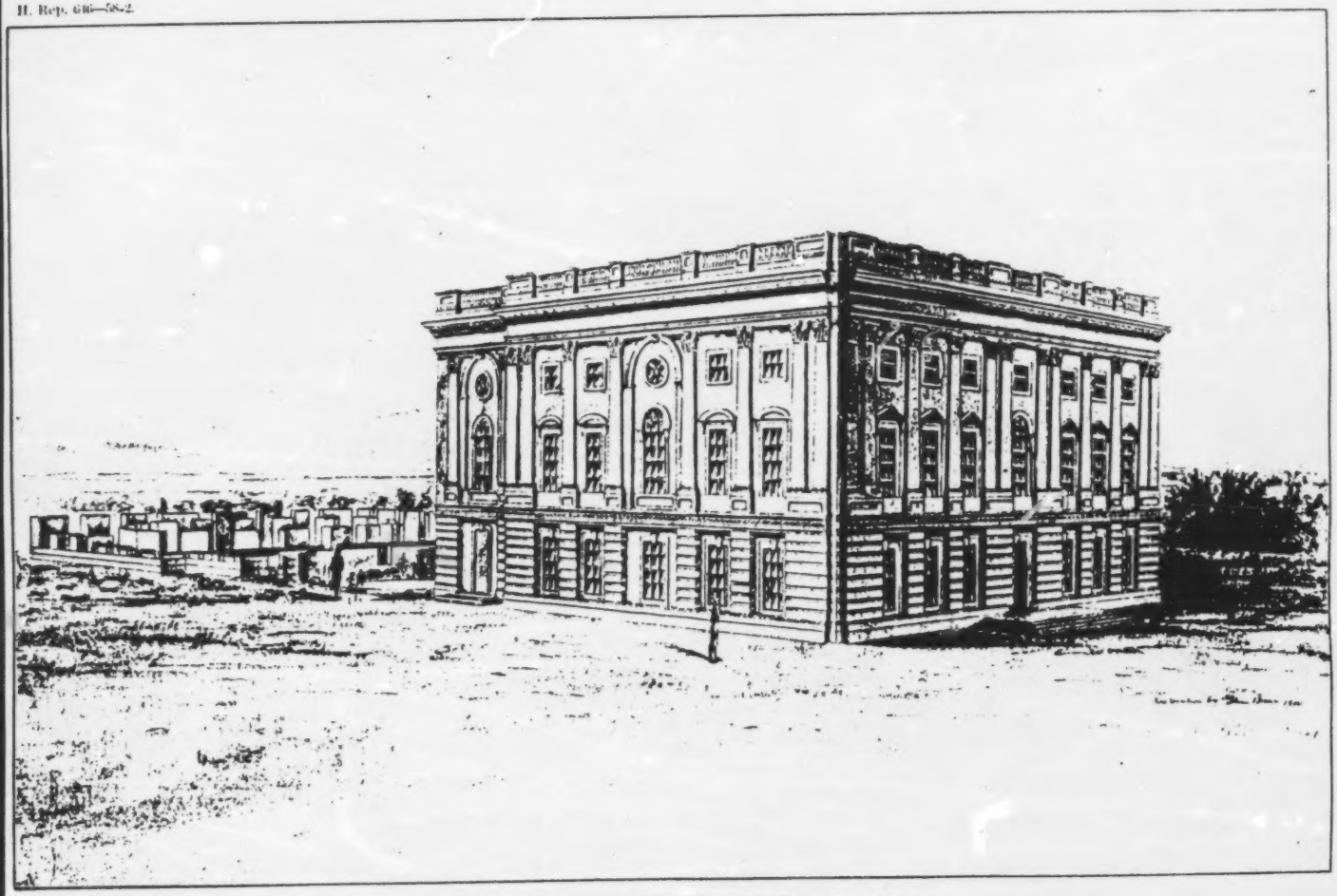
Dome (iron) - Weight, 8,909,200 lbs; diameter, 135'5"; 108 windows.

Steps to Dome - 365 from Architect's Office

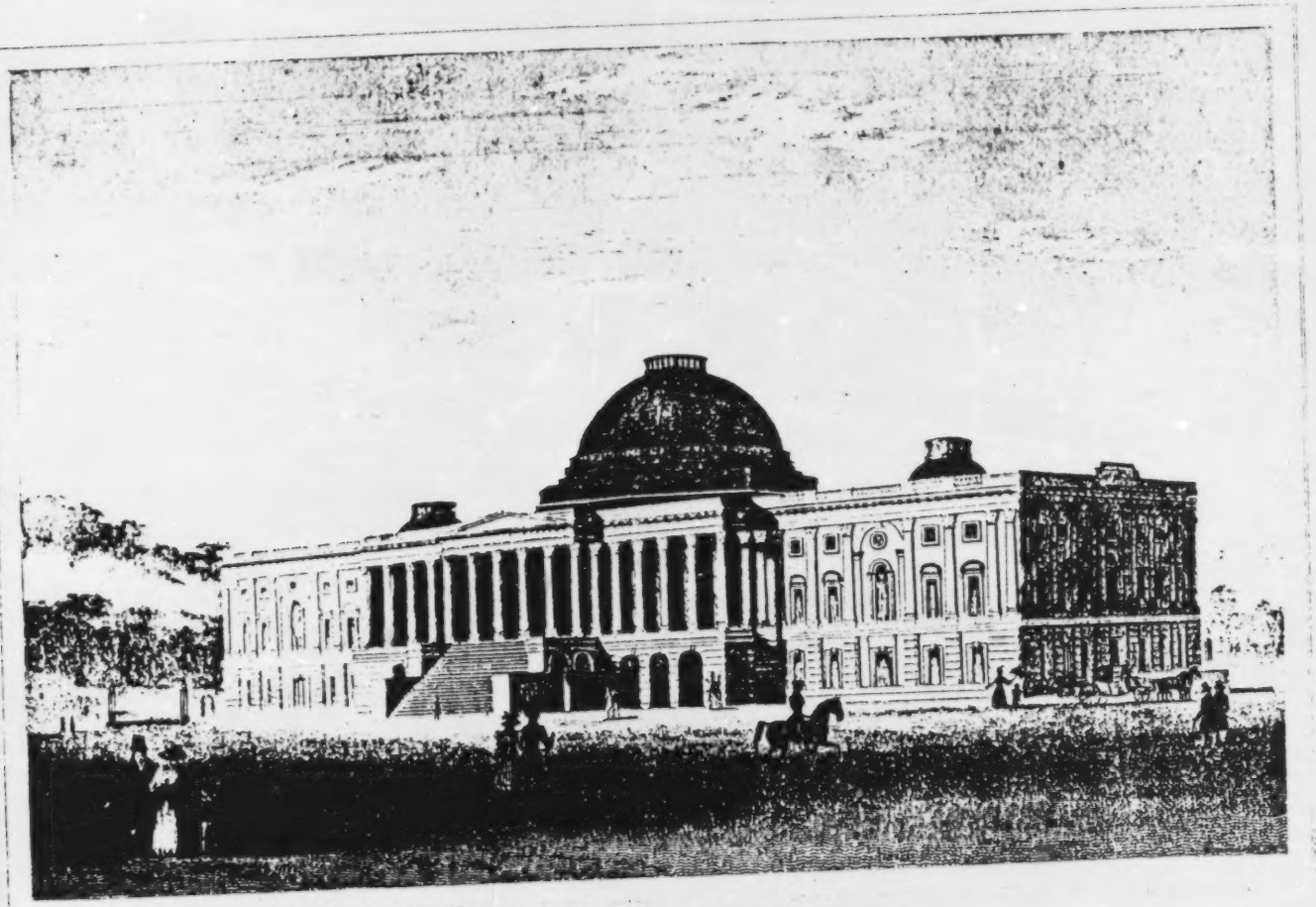
Rotunda - 97' diameter; height, 150'3" (floor to base of lantern).

Statue of Freedom - Bronze; weight, 14,895 lbs.
Modeled by Thomas Crawford - paid $3,000 for plaster mode
Cost of bronze casting, etc., $20,796.82
$23,796.82 entire cost
Erected in place December 2, 1863.

House and Senate Wings - Cornerstone for extensions laid on July 4, 1851 (northeast corner of House Wing)
Exterior marble - Quarries of Lee, Mass.
Columns - Quarries of Cockeysville, Md.

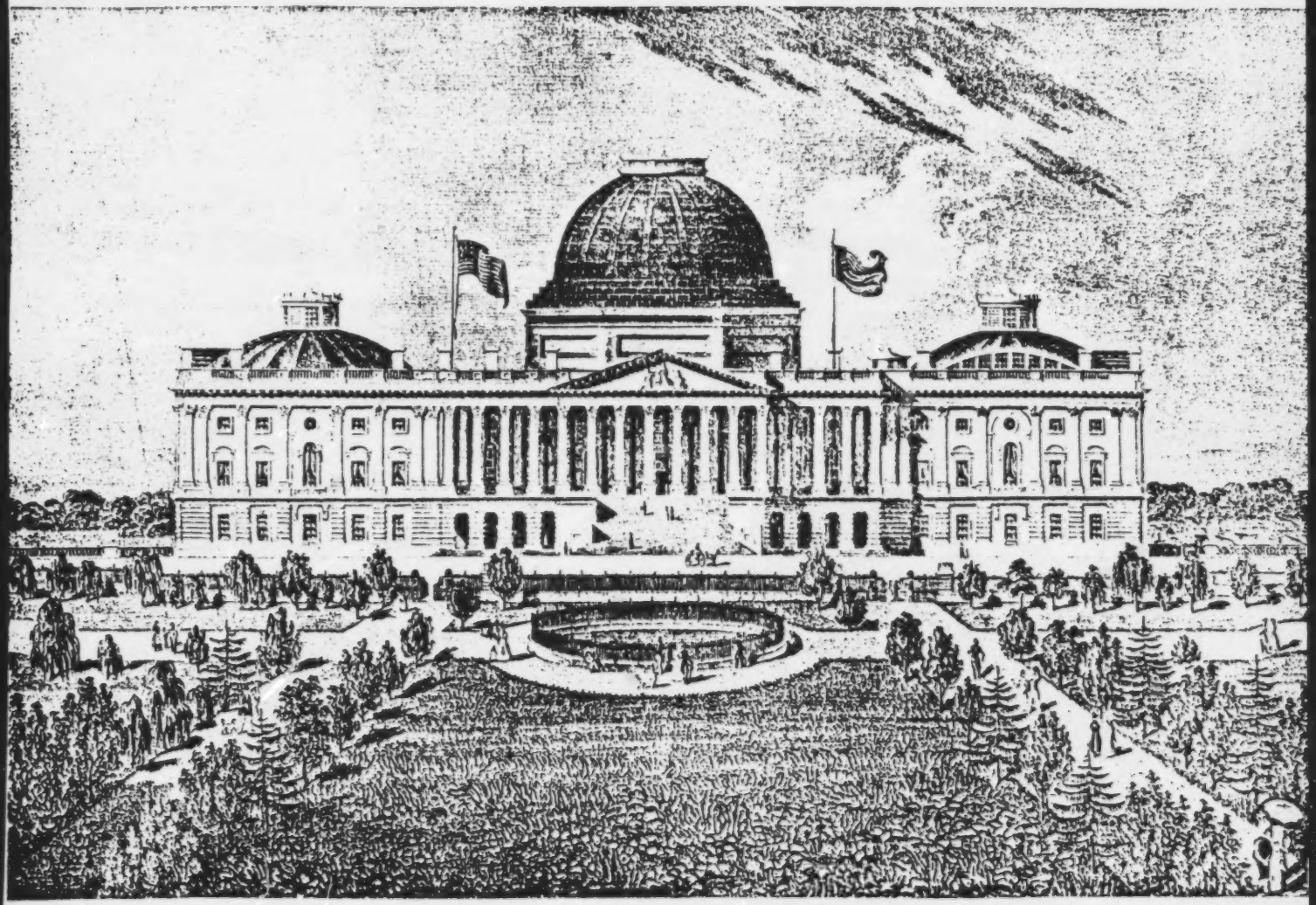


VIEW OF CAPITOL WHEN FIRST OCCUPIED BY CONGRESS, 1800.



CAPITOL OF THE UNITED STATES, WASHINGTON.

ARCHITECT OF THE CAPITOL

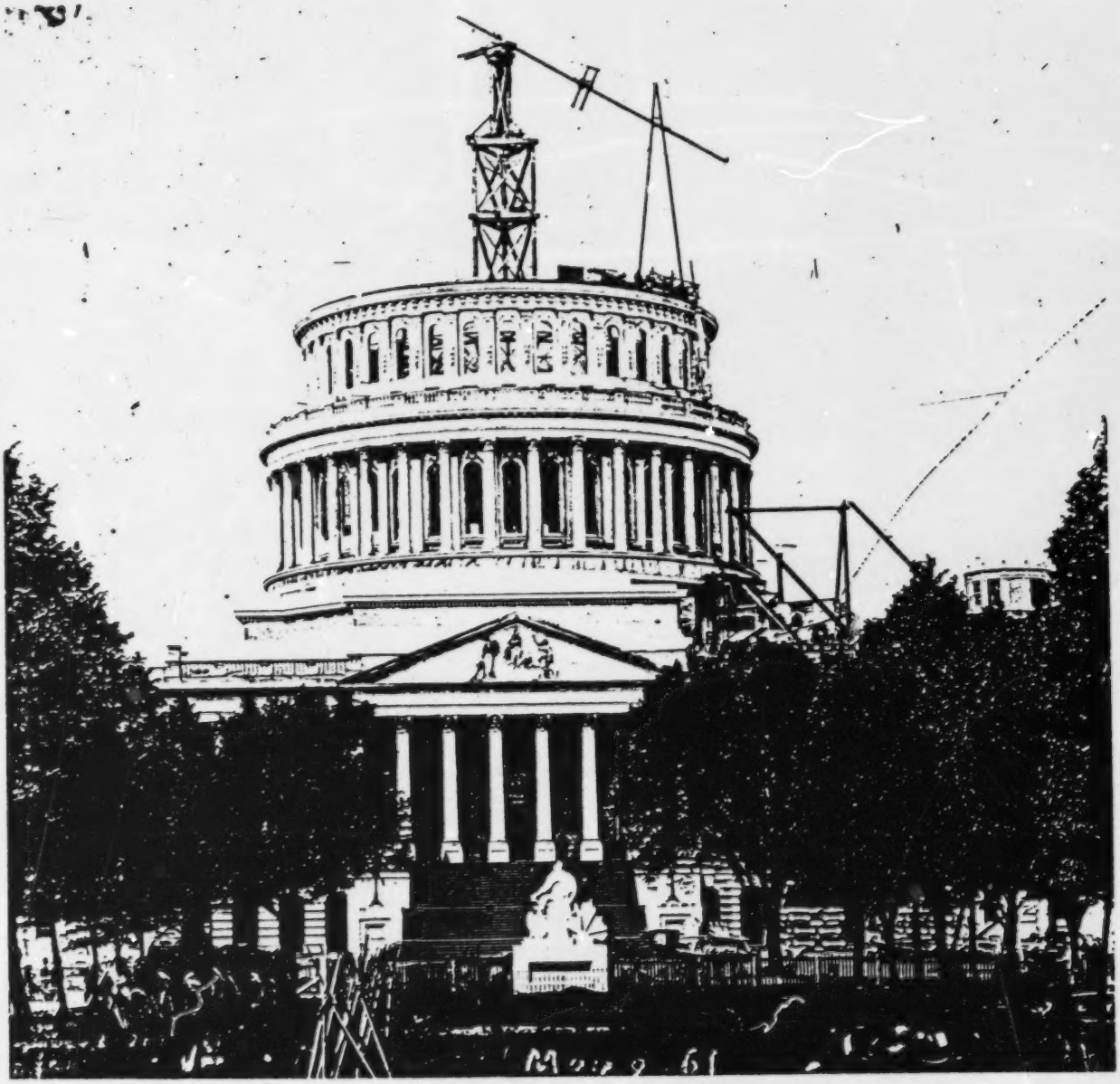


CAPITOL, 1850, EAST FRONT.

From an old lithograph.

VIEW TAKEN DURING CONSTRUCTION OF DOME, SHOWING OVERHANGING COLONNADE.

ARCHITECT OF THE CAPITOL



ARCHITECT OF THE CAPITOL

you cannot begin the filling up until the next year; and thus you lose two years; and then it will take two years for the ground to settle. You cannot fill it up until you have defined and extended the public grounds. I say there is a strong reason for taking up this bill now. It will require but a short time for its consideration, and then the private bills from the House of Representatives can come up in order.

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[Senate proceedings of Mar. 3, 1857: Congressional Globe, 34—3, p. 1082.]

The Senate, as in Committee of the Whole, having under co ideratio the sundry civil bill for 1858—

Mr. BAYARD. I have one more amendment from the Committee on Public Buildings. It is to add as new sections to the bill the following:

*And be it further enacted*, That the public grounds surrounding the Capitol shall be enlarged, (according to the plan approved by the Committees on Public Buildings of the Senate and House of Representatives, respectively, which plan is hereby directed to be deposited in the custody of the Secretary of the Interior,) by extension between First street east and First street west, in the following manner: Northwardly to the south side of north B street, and southwardly to the north side of south B street, including, in addition to so much of the reservations, avenues, and streets as are necessary for such extension, the two squares designated on the plan of the city of Washington as Nos. 687 and 688, respectively; and to provide more safe and convenient approaches from Pennsylvania avenue into First street west and north B street, and from Maryland avenue into First street west and south B street, so much ground shall be taken from the southeast corner of square No. 575 as will be cut off by an arc of a circle of two hundred and thirty feet radius, which shall touch Pennsylvania avenue at a point in the front of said square one hundred and seventy-seven feet and six inches westward from the southeast angle thereof; and so much ground shall be taken from the northeast corner of square No. 576 as will be cut off by an arc of a circle of two hundred and thirty feet radius, which shall touch Maryland avenue at a point in the front of said square one hundred and seventy-seven feet and six inches westward from the northeast angle thereof.

SEC. —. *And be it further enacted*, That for carrying the preceding section into effect, and obtaining the title to such private property as may be necessary for the purpose, it shall be the duty of the Secretary of the Interior to make application to the circuit court for the District of Columbia, which court is hereby authorized and required, upon such application, to appoint five disinterested and impartial commissioners, freeholders and residents in the said District, to make a just and equitable appraisement of the cash value of the several interest of each and every owner of the real estate and improvements thereon necessary to be taken for the public use, in accordance with the provisions of the preceding section. Before any action under such appointment, each of the said commissioners shall be sworn or affirmed by one of the judges of said district court, faithfully and impartially to perform his duties. Each commissioner must view the premises of which the value is to be appraised, but a majority agreeing may make the appraisement of value. The said commissioners, or a majority of them, shall, within forty days after their appointment, make a report in writing to the said district court, under their hands, describing the separate premises of which the value is therein appraised, with sufficient certainty for the purpose of identity, and specifying the cash value as appraised by them of the interest of each owner in the premises so described, which report shall be filed and remain of record in the said court. The appraisement made as aforesaid shall be final and conclusive.

SEC. —. *And be it further enacted*, That the fee-simple of all premises so appropriated for public use, of which an appraisement shall have been made in the report of the commissioners to be filed as aforesaid, shall, upon payment to the owner or owners respectively of the appraised value, or in case the said owner or owners refuse or neglect for fifteen days after the filing of the report to demand the same from the Secretary of the Interior, upon depositing the said appraised value in the said district court to the credit of such owner or owners respectively, shall be vested in the United States. And the Secretary of the Interior is hereby authorized and required to pay to the several owner or owners respectively the appraised value of the several premises, as specified in the report of said commissioners, or pay into court by deposit, as hereinbefore provided, the said appraised values, and the sum necessary for such purpose is hereby appropriated out of any moneys in the Treasury not otherwise appropriated.

SEC. —. *And be it further enacted*, That the said commissioners are hereby authorized to employ a clerk to prepare and transcribe the said report so to be made by them, and the Secretary of the Interior is hereby authorized to pay to each of said commissioners and the said clerk, for their respective services, such compensation as he may deem just and reasonable, and the sum necessary for that purpose is hereby appropriated.

SEC. —. *And be it further enacted*, That upon the title to the property herein and hereby appropri-



ARCHITECT OF THE CAPITOL

ated for public use becoming vested in the United States, as provided in the preceding sections, the Commissioner of Public Buildings is authorized to enter and take possession of the property so appropriated without suit or process.

SEC. —. *And be it further enacted*, That the sum of $56,000 be, and the same is hereby, appropriated, out of any moneys in the Treasury not otherwise appropriated, for filling up and leveling the public grounds around the Capitol as herein enlarged, and removing the buildings therefrom.

I do not purpose to detain the Senate on this subject. I was anxious to pass this measure as a separate bill, but I found that impracticable, the Senate being engaged with other questions to which a preference was given. The enlargement of the public grounds around the Capitol is necessary to be commenced at once. Their improvement afterwards must be the work of time. Until you definitely fix the boundaries, you cannot go on with the improvements. There is a great deal of filling up to take place on the southern side, the embankment of which, according to the written communication of the engineer who has been employed by the Commissioner of Public Buildings in surveying the ground, will take from one to two years to settle before you can pretend to grade it, or fix a circular fence around it, or proceed with any improvements whatever. I therefore think it very important that we should act at this session. Beyond all question, as the Capitol is now extended, (and we expect to get into the new wings next December,) the grounds are entirely inappropriate to it. The committees of both Houses have investigated all the plans before them, and have approved of this plan. The approval of the Committee on Public Buildings of the House of Representatives and of the Senate is indorsed on the plan as it is hung up in the lobby.

I am aware there are differences of opinion as to the extension of the grounds in a westerly direction. My own judgment is entirely against that. It is corroborated by the committee of the House. It is corroborated by the architect who gave you the design of the Capitol. It is corroborated by the engineer, and indeed by all persons of taste and judgment in the matter. There is no projection of the building in a westerly direction, and there is no necessity for the enlargement of the grounds in that direction, and there would be difficulty in arranging and grading the public grounds, if you extended them westward. If this measure be not adopted now, the public grounds will remain in their present confused, disorganized state for years after the new Capitol will have been occupied by both Houses of Congress.

Mr. DOUGLAS. It is with great reluctance that I antagonize with my friend from Delaware on this question. I award to him, as chairman of the Committee on Public Buildings, full credit for the deep interest, the industry, the application, and the skill he has shown in the performance of the intricate and delicate duties of that position. He doubtless thinks he has done the best he can for the park about the Capitol; but I believe he has failed to secure for the public grounds that breadth on the lower side of the slope, the western slope facing the city, that we ought to have. If we must have a curtailment, I prefer to make the curtailment on the east, up on the hill, and enlarge on that side facing the city. I will go for the largest amount of ground for the park surrounding the public buildings. His plan does not make that breadth, north and south, fronting the city, which I think is essential for the purpose of making the public grounds what they ought to be. Anxious as I am to secure this large appropriation of land, I feel bound to resist the proposition of the committee as falling short of what we ought to have. In other words, I am not willing to take in a less park than we shall have by taking the ground between C street north and C street south, and going westward as far as Second or Third street west. As to the enlargement eastward, I should not make much controversy whether you take in the blocks proposed to be included by the Committee on Public Buildings or not. I am not willing to limit the extension west, north, and south by a less limit than I have stated.

Mr. BAYARD. It is natural that there should be a difference of opinion in relation to the enlargement of the public grounds. The honorable Senator from Illinois may

ARCHITECT OF THE CAPITOL

this Capitol; and I think, in starting, it is best to start right, and to take lots enough at once. One hundred thousand dollars, or two hundred thousand dollars, or three hundred thousand dollars, is of no consequence to the country in comparison with the importance of having the grounds large enough about this Capitol, and having those grounds beautified and adorned.

Mr. PRATT called for the yeas and nays; and they were ordered.

Mr. DOUGLAS. I desire to offer an amendment to the amendment. I wish to have the grounds enlarged northward and southward to C street south, and C street north, and westward to Third street; and I am willing to leave the curve lines to be fixed by the Commissioner of Public Buildings.

The PRESIDENT *pro tempore*. Does the Senator from Illinois propose his amendment by direction of a committee?

Mr. DOUGLAS. No, sir; I propose to amend the amendment of the Senator from Delaware as to the boundaries. He proposes to enlarge the grounds by a given boundary. My proposition is to amend his boundary.

Mr. HOUSTON. I do not know that I have any particular objection to this amendment; I do not care how magnificent or extensive the design may be; but there is one principle in the amendment of the Senator from Delaware to which I object. By it, the Government assumes the whole power and privilege of determining what the rights of the citizens are. They have no option, no election in the matter. The amendment of the Senator from Delaware gives the circuit court of this district power to appoint five commissioners for the purpose of determining the value of this property. The judge can appoint them from any part of the District of Columbia he may think proper—persons acquainted or unacquainted with the value of the property involved in this bill of condemnation. The action of the commissioners is to be final, or rendered so by the *fiat* of the Secretary of the Interior, and the citizens are liable to be turned out of house and home within forty days after the judgment is rendered. They have no voice in the selection of the arbitrators who are to value their property. It is to be taken from them and confiscated, or appropriated to Government uses without their consent. It seems to me that in time of profound peace, when no great emergency exists, this would be an act of violence and usurpation towards them which the necessities of the Government do not sanction. If the citizens were allowed any election—if they were to be heard by any representative or persons selected by themselves, there would be some fairness in it. No man knows so well the value of his property to himself as the owner. What may appear very indifferent to persons not immediately connected with it, to him is inestimable. He may have attachments to it. It may be his home, or his place of business, of great consequence to him. He may have in his mind designs of improvement. Here you propose to deprive men of their property, and to pay them what the valuators may say it is worth, without their having any voice in the matter. I have before me a memorial from one of the property-holders concerned, and I ask that it may be read.

The Secretary read as follows:

*To the honorable the Senate and House of Representatives of the United States:*

The memorial of Samuel C. Busey, of the city of Washington, showeth:

That he resides on lot 23, square 688, in the city of Washington; owns, has built upon, and improved the same for his dwelling and place of business, as a practicing physician; his dwelling fronts on First street east, between A and B streets south. His business locality for several years last past has been fixed, is well known, and designed to be permanent.

That a bill entitled "A bill to enlarge the Capitol grounds surrounding the Capitol" is now pending in the Senate, the object of which is to deprive this memorialist (in common with the other owners of the property in said square) of his said property, to break up his business locality, and to remove him from his home against his will, and, as he respectfully conceives, without any provision by law under which he shall receive just compensation therefor.

ARCHITECT OF THE CAPITOL

13 A D 15.3

Office of the Superintendent of
City of Washington
29 Oct. 1814

To the Honorable R. M. Johnson

In answer to the enquiries you made of me yesterday, I have the honor to state that the whole cost of the under mentioned public buildings from the commencement to the burning by the enemy appears as follows:

| | |
|---|---|
| North wing of the Capitol, including the foundation walls of both wings, and the centre or main building, and of altering and repairs | $457,388.36 |
| South wing of Capitol | 329,744.92 |
| President's House | 334,334.02½ |
| Public offices (addition as copied) | 96,613.92 |
| | $ 1,215,111.10½ |

At the instance of a committee of the Senate, the remains of those buildings have been examined by architects and master buildérs, all of whom report it as their opinions that the walls of the President's House and both wings of the Capitol, with some inconsiderable repairs, will be safe, and sufficient to build on. The walls of the two offices, particularly of the upper stories, are deemed insufficient to bear new roofs and will require taking down and renewing as far as shall be found necessary. The amounts of the estimates for repairing and rebuilding the five offices, making the offices fire proof, with some other improvements suggested, are from $350,000 to upwards of $600,000. The largest estimate, however, embraces an expense of considerable amount for completing the west part of the north wing for a library, which none of the lower estimates include. The average amount estimated of putting all buildings in the state the enemy found them appears by dividing the

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Capitol - Cost of

aggregate amount of the estimates by the number of them, to be about $40,000, allowing for the materials of the burnt buildings which may be used in rebuilding.

I have the Honour to be, with very great respect, Sir, Yr Humb. Sevt.

Thomas Monroe

ARCHITECT OF THE CAPITOL

Niles Register v 19 p 222

Washington, Nov. 22, 1820

To the president of the United States.

Sir:

The expenditures on account of the centre building of the capitol, from October 1st, 1819, to the 30th of September, 1820, as far as regular vouchers have been received, amount to one hundred and twenty-seven thousand three hundred and ninety-six dollars and fourteen cents. For the progress made in this building, I beg leave to refer to the report of the architect, a copy of which, marked A, is annexed.

I have the honor to be, most respectfully, your obedient servant,

Sam. Lane,
Commissioner of public buildings

A

Washington, Nov. 19, 1820

Samuel Lane, Esq.
Commissioner of Public Buildings

Sir:

At the close of the season for active operations, I present a statement of the proceedings for the past year, and of the progress made on the capitol of the United States.

The alterations and improvements suggested for the representatives' room and the senate chamber, have been effected within the amount of the estimated expense. Considerable progress has also been made in regulating and improving the grounds; the planting of trees and shrubbery will be continued while the weather will permit.

Work on the centre of the capitol has been urged on with as much force and despatch as the solid nature of its construction would allow. The external walls of the west projection, and the greater part of the internal walls connected with them, have been raised to the height contemplated in the estimate for the year. The roof is raised on the north flank of the centre, and that for the south flank is prepared, but has been prevented from being put on by the inclemency of the weather in October, and by an unusual sickness among the workmen. The wall of the east front is not raised as high as was expected, for a opinion that it would be more advisable that the inner-walls of the great rotunda should be carried on at the same time, for the purpose of make a more equal bearing and pressing more regularly on the foundation. The walls of the rotunda have accordingly been commenced, and given an opportunity of viewing the style and manner in which it will be finished. Although a portion of the labor has been differently bestowed from what was first contemplated, yet it is believed that it will appear that the change was judicious, and that as much progress has been made in the work as was promised or expected; that it has been done with economy: and that the expense has been kept within the estimates.

Respectfully submitted, by your obedient servant,
CHARLES BULFINCH,
-33- Architect, Capitol, United States

ARCHITECT OF THE CAPITOL

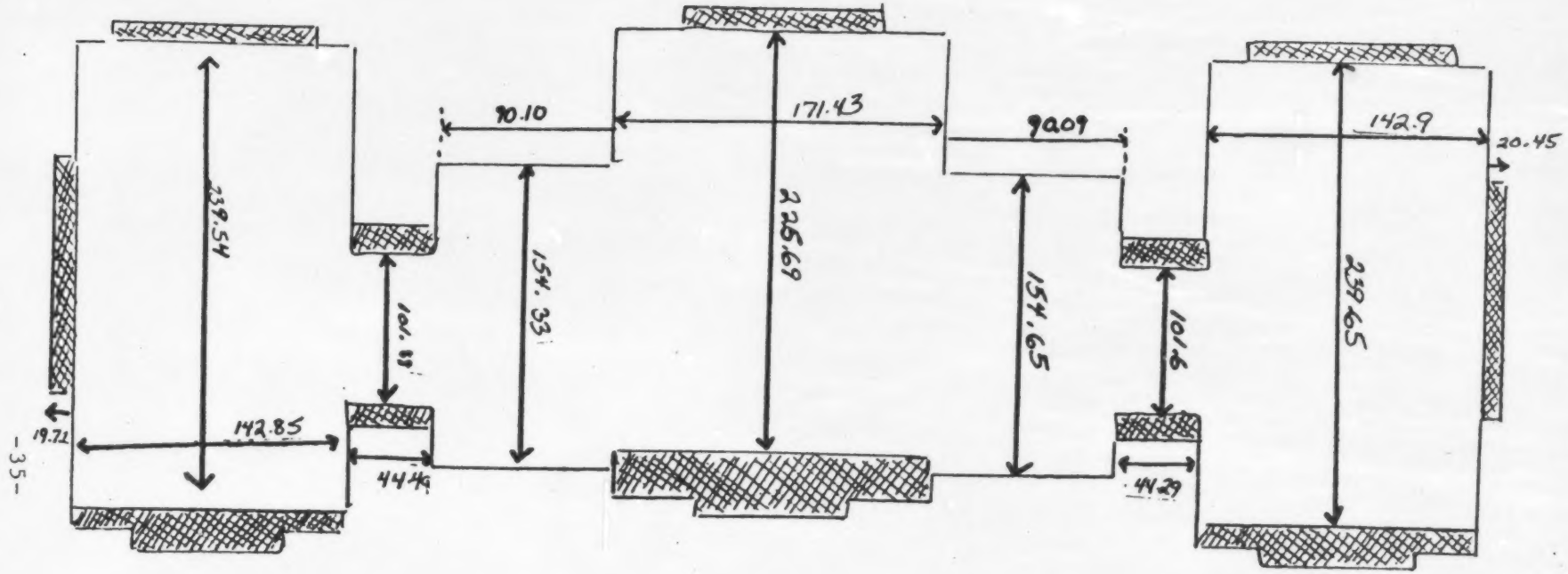
## COMPLETION AND COST OF THE UNITED STATES CAPITOL

REFERENCE:

From the Records of the National Archives, Washington, D. C. - Record of the Commissioners, Vol. 7, Page 23 - Duties of the Commissioners:

| | | |
|---|---|---|
| The North Wing was commenced in 1792 and finished in 1800. | Cost ..... | $ 480,262.57 |
| The South Wing was commenced in 1803 and finished in 1827. | Cost ..... | 308,808.41 |
| The Central Building was commenced in 1818 and finished in 1827. | Cost ..... | 957,647.3[illegible] |
| | Total ..... | $ 1,790,718.3[illegible] |

ARCHITECT OF THE CAPITOL




Dimensions given in Feet

length N-S (including portico) 766.33
outside wall to outside wall 726.07

length Senate

N→

# UNITED STATES CAPITOL

56 measured drawings (B. Hocraft) Does not include Extension / East Front

## The Capitol Experience in Washington, D.C.

Lesson #3

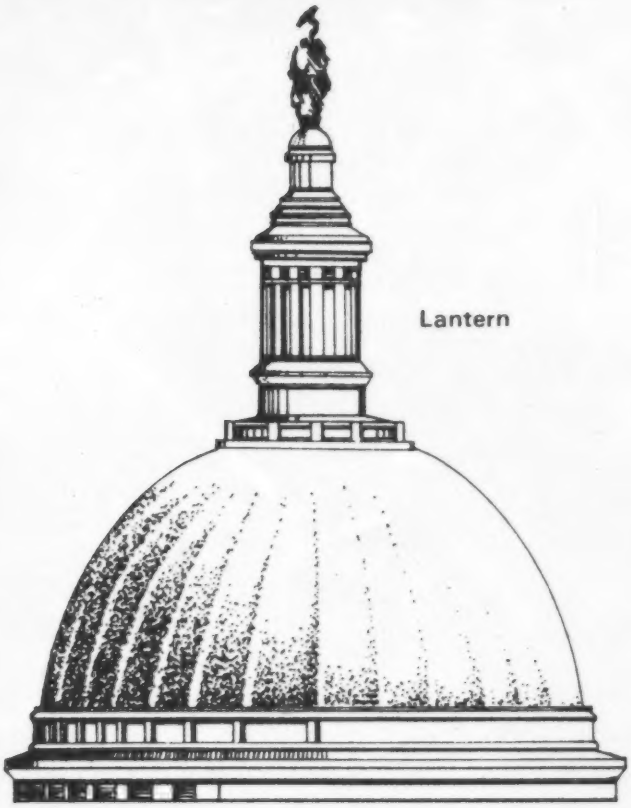
Goal: To have students learn about styles of architecture, particularly Greek (and Roman) styles that were used in the U.S. Capitol and elements of those architectural styles.

Objectives:
1. Students will be able to define what is meant by the Classical style of architecture and its elements of style.
2. Students will be able to describe and recognize these specific architectural terms, from glossary, on buildings, in slides, and book.

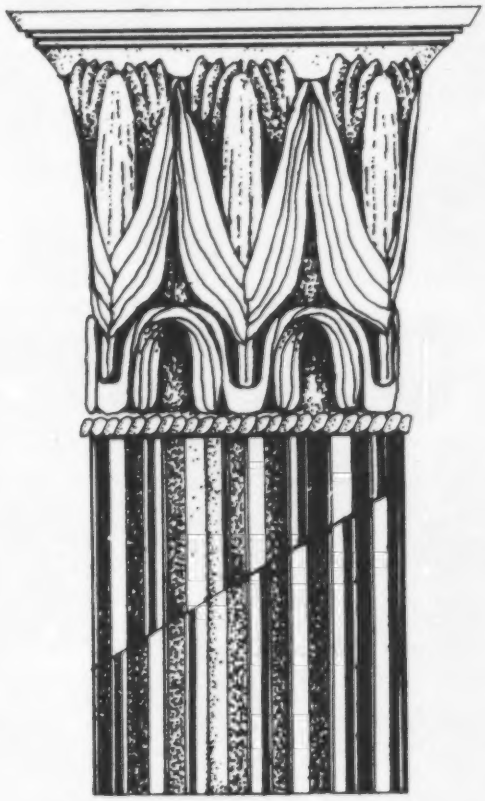
Materials:
Answers to Pre-test and yesterday's questions
Copy of The Capitol
Transparencies - floor plan of U.S. Capitol, sample of different architectural house/building styles, glossary/drawing of U.S. Capitol
Slides of U.S. Capitol
Class work from yesterday
Homework - questions on architecture of the U.S. Capitol
Copy of The Capitol

| Teacher | Student |
|---|---|
| Ask students if any questions on class work - answer - collect work to check. | Students reply with answers. |
| As a short review of architectural growth of Capitol, have a student re-create it on the blackboard while the other students do the same in their notebook. Have them number the sections 1-2-3, etc. as they were built - chronologically. | Students draw and label. |
| Have the students check their drawing against yours for accuracy. | Students check their drawing for accuracy. |
| Give a brief lecture on what Classical architecture is and where it came from, and how it got to U.S. | Students take notes. |

| Teacher | Student |
| --- | --- |
| Go over homeowrk - questions taken from "Architecture of the U.S. Capitol." | Students answer. |
| As you go over #2 from homework, put illustrations that show and explain the Federal style of architecture. | Students take notes and draw sketches to remember in notebook. |
| Show examples of buildings using pictures. Any architecture book will have needed pictures. | Students take note. |
| Answer #3 next. Have students call out words and either write on board or on clear acetate or overhead projector. | Students check their list against the one being made. |
| Ask for volunteers to explain 1 or 2 of the words, if they know them. | Possible volunteer gives information. |
| Hand out architectural glossary list and go over all the words and the drawings that correspond. | Students read over vocabulary list. |
| Now, take transparency of U.S. Capitol drawn before the H/S wings were added, and either show the class some of these vocabularies - or "elements of style" that are found on the U.S. Capitol. | Students look at transparency and see the elements of style you are pointing out. |
| Explain "elements of style" to class as those architectural details which specifically related to a period in architecture. | Students listen. |
| Students are to practice looking for these elements of style that are Classical on the slides you have taken of the Capitol. Using their vocabulary on Glossary of Architectural terms sheet - they point them out as you show the slides | Students point out elements. |
| or | |
| If you don't have slides of Capitol, you can use the book, The Capitol, and find most of these Classical elements illustrated in the photographs and drawings. | Students write. |
| Homework - ask students to find examples of 10 Classical elements of style used on other buildings in Arlington. List element and tell which building located on by street address - or tell name of building. | |

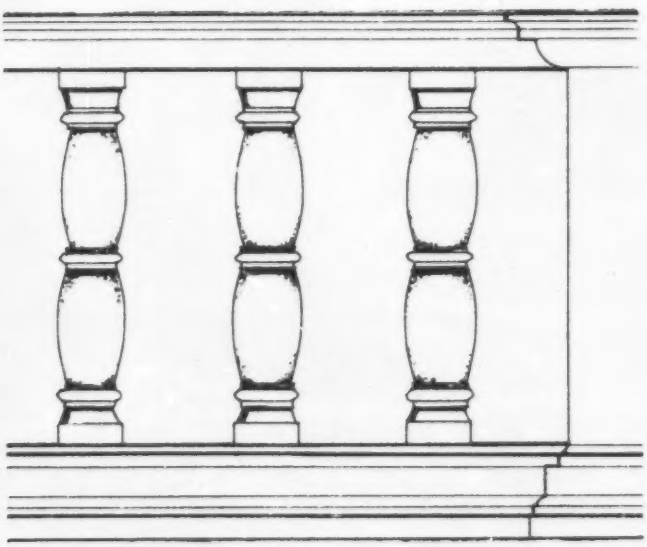



Dome

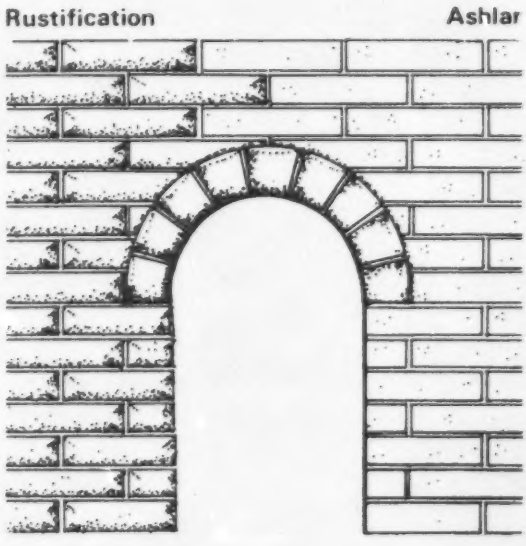


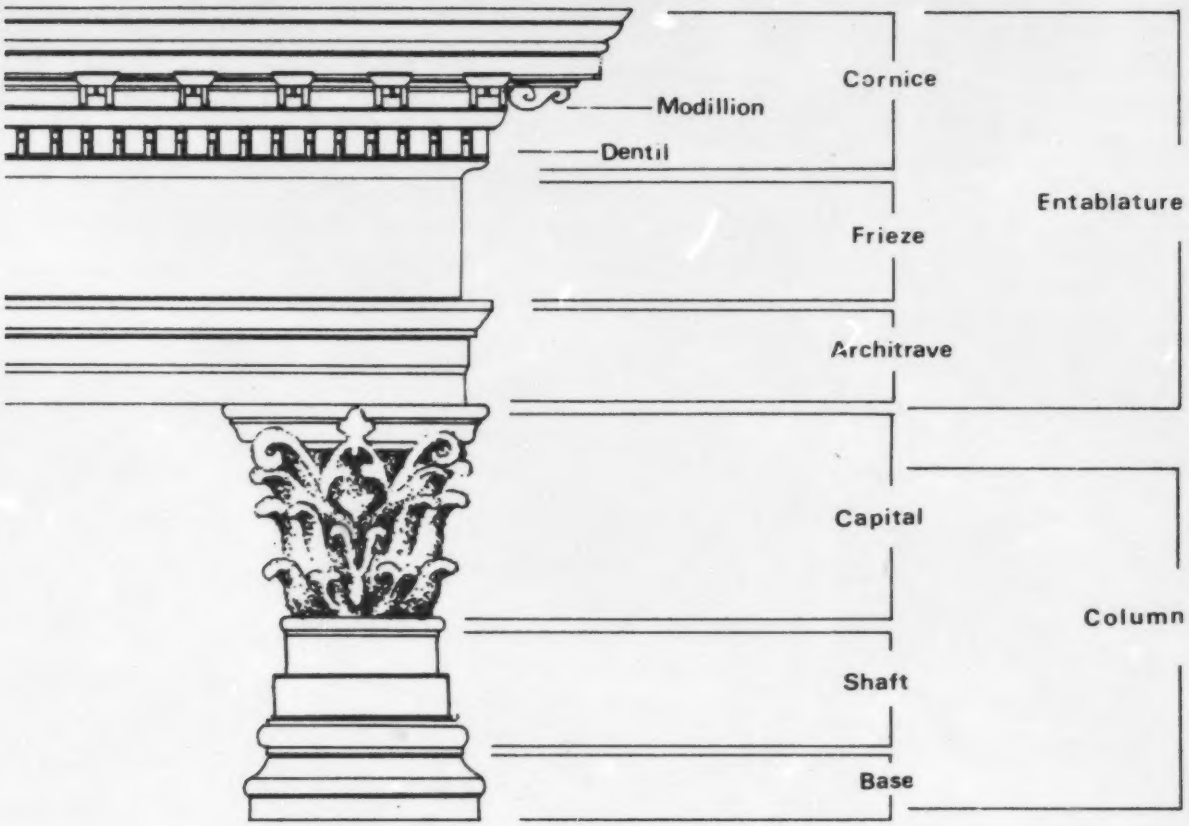
Corn Column

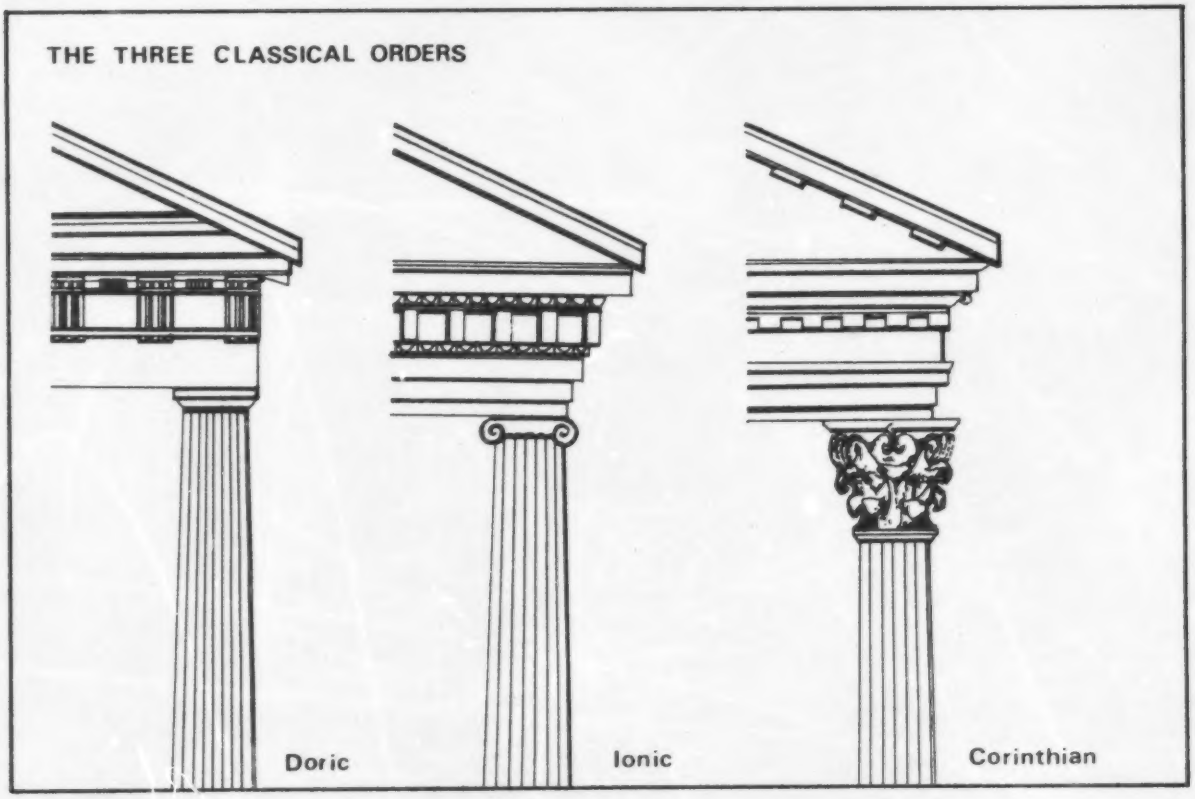
Balustrade

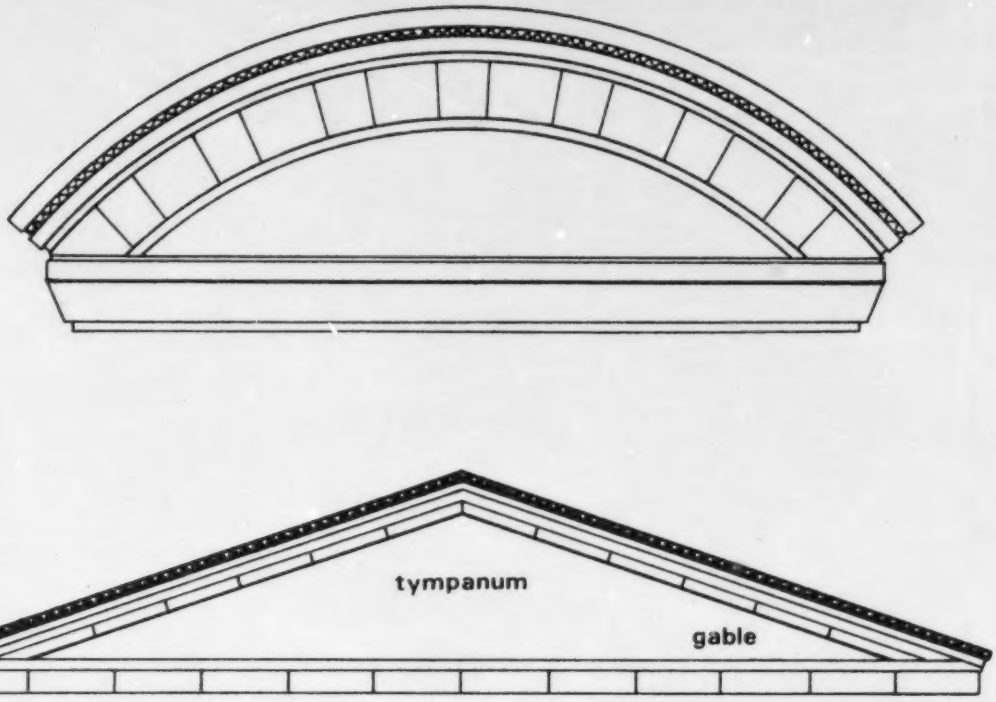


Keystone Arch

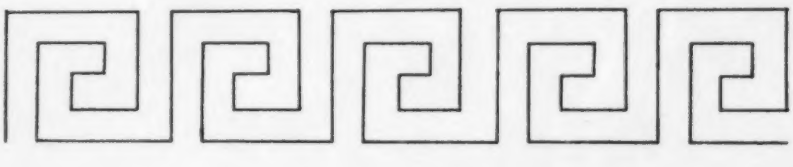



Cornice
Modillion
Dentil
Entablature
Frieze
Architrave
Capital
Column
Shaft
Base

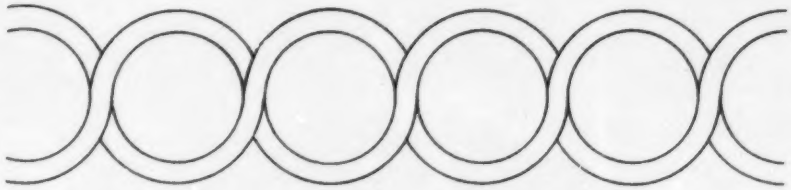

THE THREE CLASSICAL ORDERS
Doric
Ionic
Corinthian



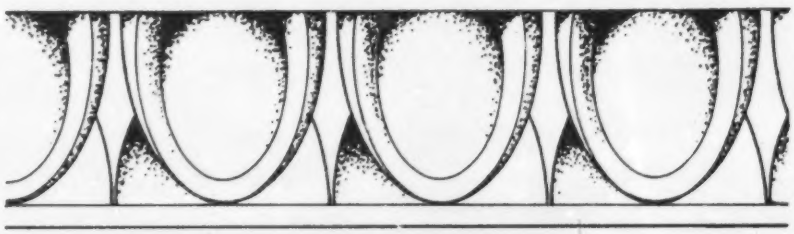

PEDIMENTS



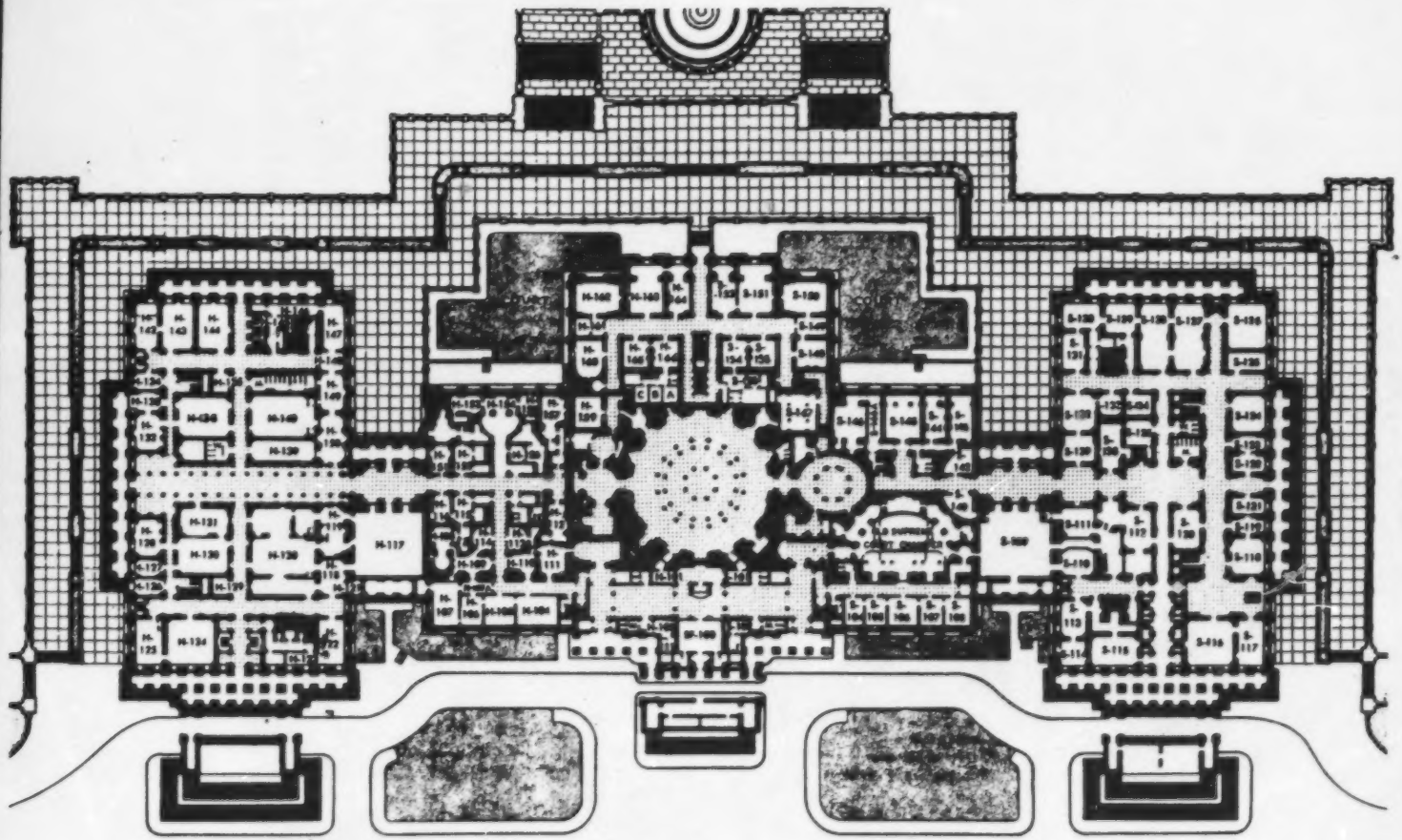
Greek key



Guilloche

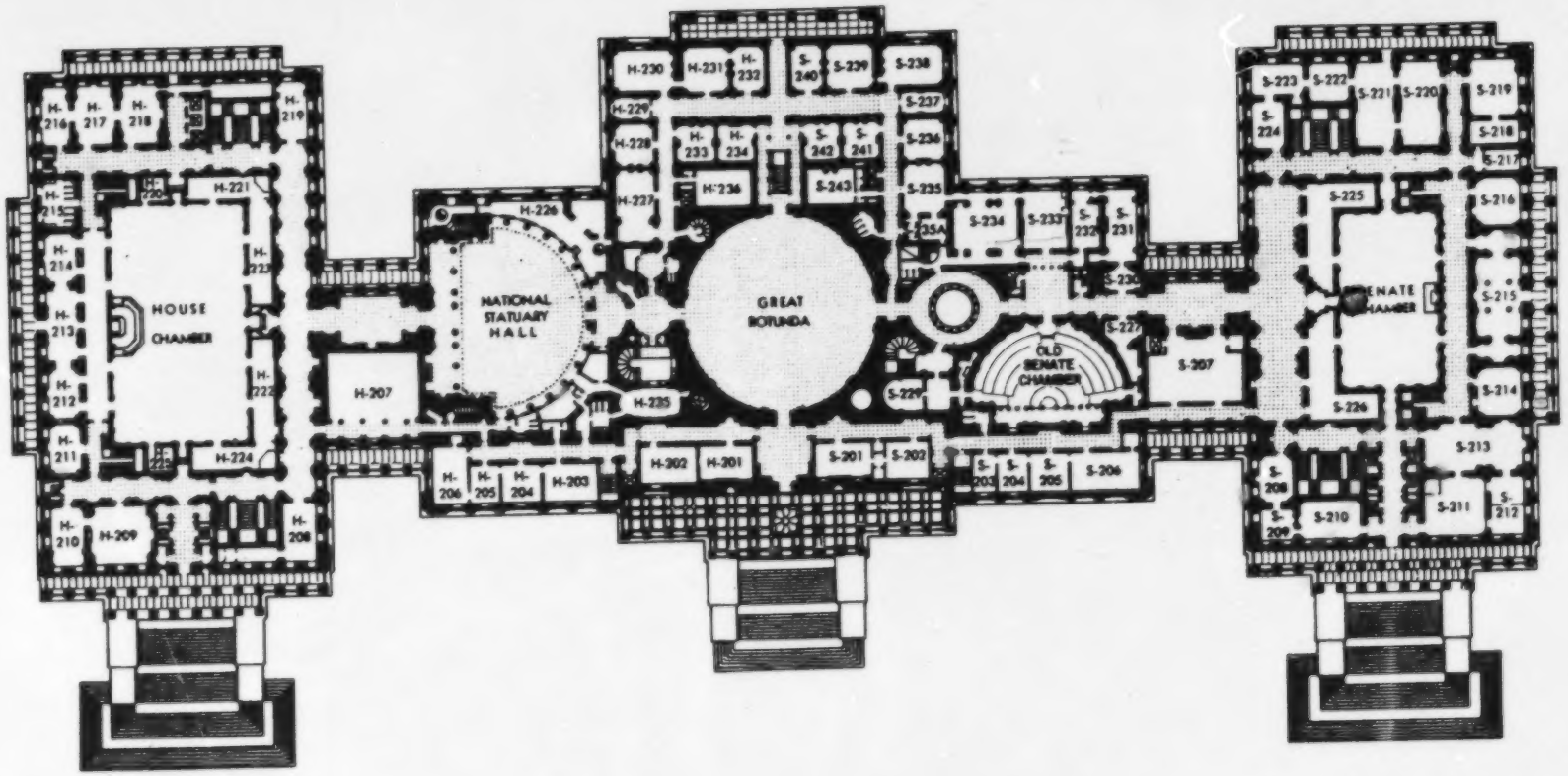


Egg-and-Dart



FIRST (GROUND) FLOOR PLAN

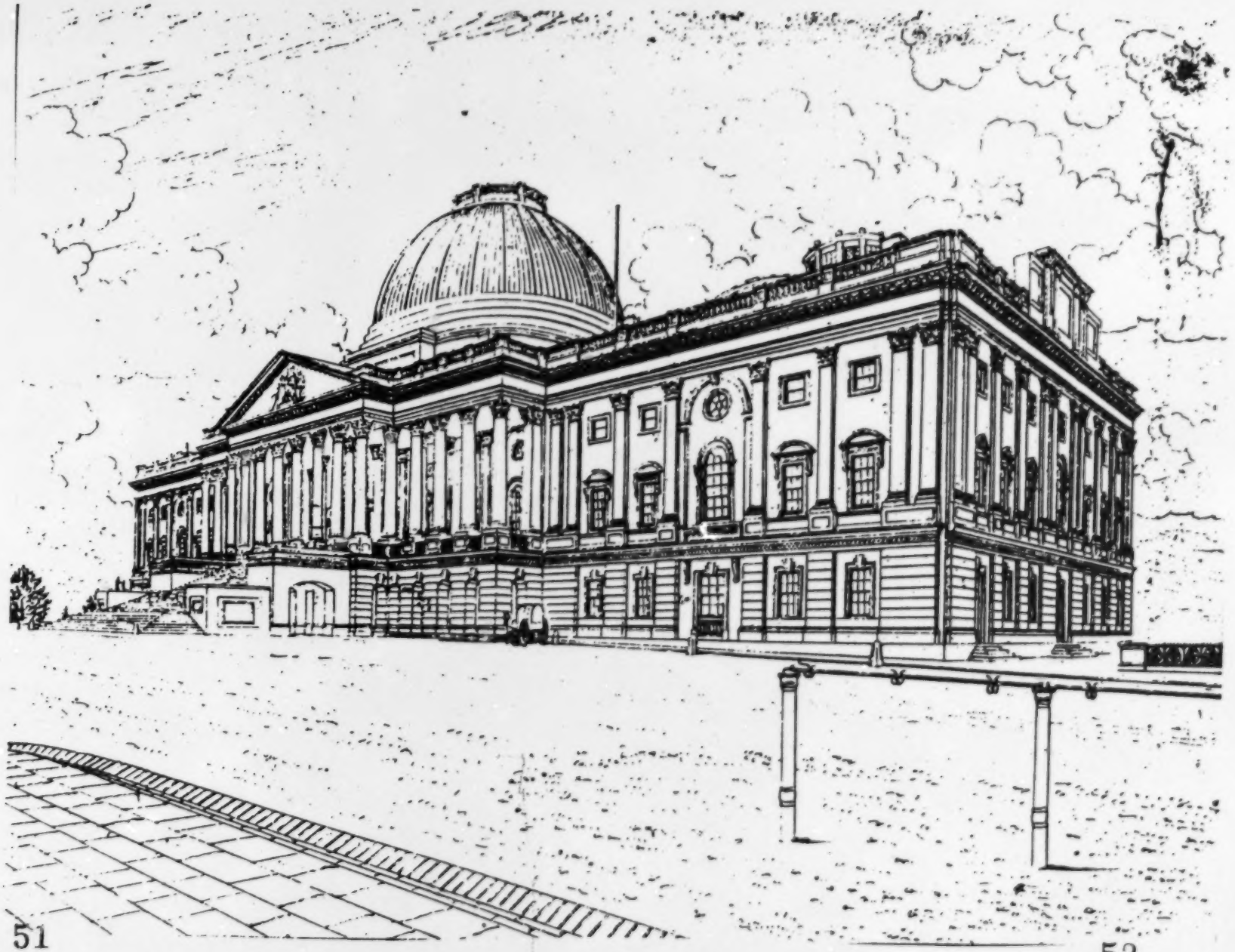
# UNITED STATES CAPITOL




SECOND (PRINCIPAL) FLOOR PLAN

scale: 0 16 32 48 64 feet

# UNITED STATES CAPITOL



51

52

## The Capitol Experience in Washington, D.C.

Lesson #4

Goal: To have students get acquainted with Washington, D.C., particularly the federal part of the city, and its monumental architecture.

Objectives:
1. To visually see the development of the city of Washington along side the building of the Capitol.
2. To observe how 2 disciplines, planning and legislation, built a city and a government both recognized around the world in the embodiment of one building - The U.S. Capitol.

Materials:
Film on Washington, D.C. (See Bibliography)
Line drawing of U.S. Capitol - transparency
Student handouts #1, #2, #3
Tom Lowderbaugh's article, "How Public Buildings Stand on Ceremony"
Last night's homework

| Teacher | Student |
|---|---|
| Go over homework. | Students answer with examples. |
| As a little "quiz" ask each student to draw 5 elements of style that they feel are most representative of Classical architecture, identify them with the correct name and turn in to you. | Students draw and identify Classical elements and turn in to you. |
| Review - Using line drawing of U.S. Capitol, go over with students 10 Classical elements of style shown on transparency. | Students reply. |
| Explain that we have gained some knowledge about the history of the Capitol, learned/memorized some Classical elements of style. Today you'll see the building in its setting - the Capitol City itself...Washington...and the role the building and the Government play in the world today. | Students view film. |

| Teacher | Student |
| --- | --- |
| After film, answer any questions the students may have regarding the film. This film is to help them to get the whole picture of the building and its city and how one is represented by the other. | Students discuss film. |
| Remind students about field trip. Give out student handouts #1, #2, #3. Ask students to read over them for clarity. Answer any questions. | Student reads handouts. |
| Homework - hand out article, "How Public Buildings Stand on Ceremony." Explain assignment. | Listens to assignment; acknowledges. |

Lesson #4 - Student Handout #1 Information Sheet
(Day before Field Trip)

The elements of style which we have gone over in class are easily recognized on the outside of the U.S. Capitol. Our first exercise as a class will be to stand on the east side and as a group point out the specific elements of style we can clearly see. Make sure you have your architectural glossary with you.

However, some of these same elements of style have been used on the interior. Can you offer suggestions why? What are they? Your task will be to find where these elements are used and suggest ideas as to why these elements were used. Using the number of the vocabulary word on your list, you will mark on a map one location for each element of style you find. Not all will be found. You may find other elements we have not discussed. Have one member of your group either sketch or describe it and locate it on the map.

Your homework tonight in preparation for tomorrow is to read this article, "How Public Buildings Stand on Ceremony," by Tom Lowderbaugh. Restate his thesis - write it down on notebook paper. Consider answers to the three (3) questions he proposes about public buildings, this time the U.S. Capitol, specifically. Recall what you have read in The Capitol, and what you have seen in the film and slides.

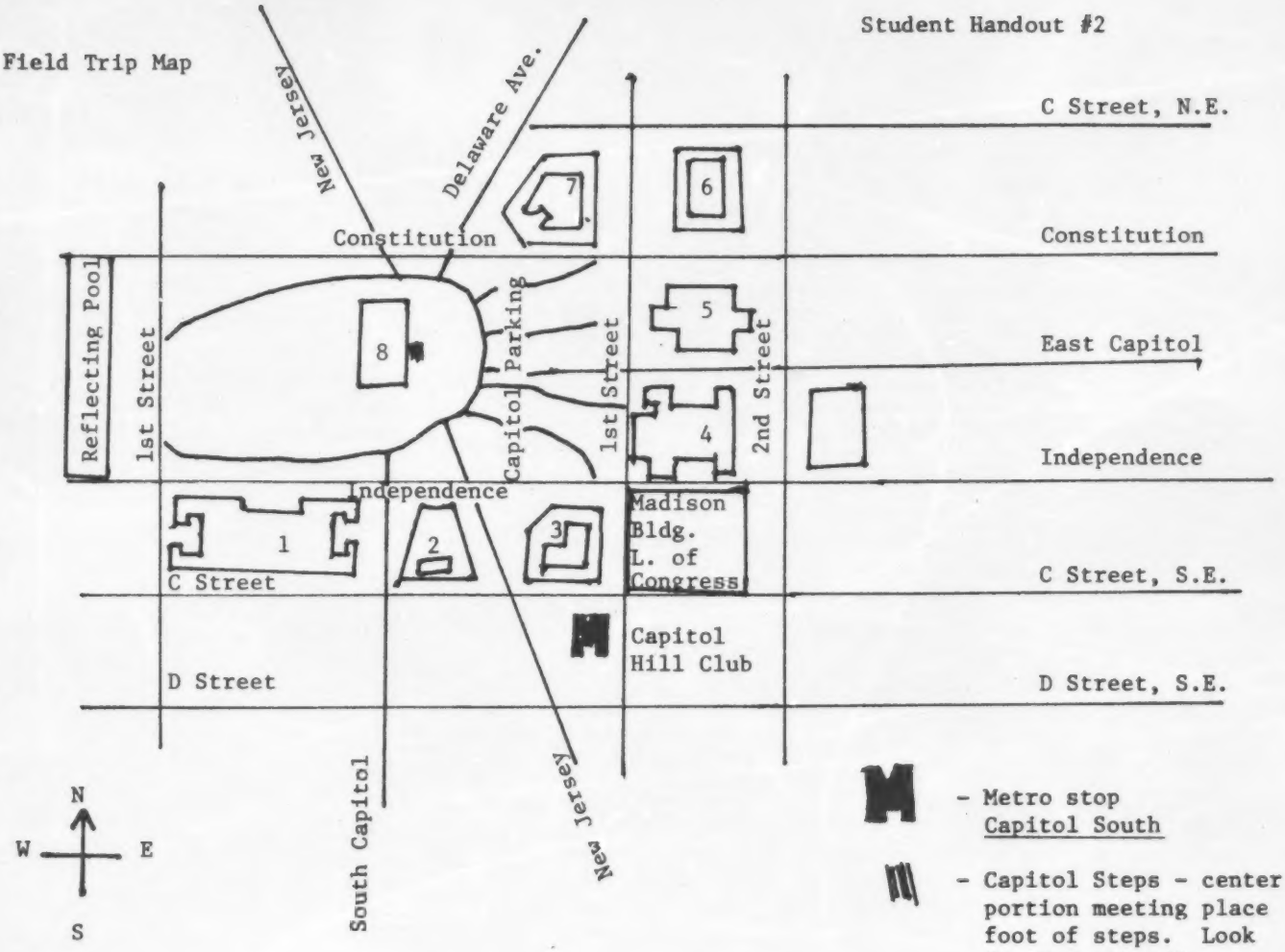
As you walk around the Capitol and ajoining grounds tomorrow, think momentarily of these questions again:

1. Where is the U.S. Capitol located?
2. What is the U.S. Capitol made of?
3. What does the building make you think of?
4. What does the U.S. Capitol say to you?

You will be in groups of 2-3 - your choice. Some of you may want to bring your camera. You all need a pencil, clip board, paper, watch, map given today, architectural glossary, and schedule for tomorrow. Please dress appropriately for a business office.

Student Handout #2

Field Trip Map




Capitol Field Trip

Metro get off at Capitol South

Name/Identify buildings 1-8 below please.

1.

2.

3.

4.

5.

6.

7.

8.

In which building is your Congressman's Office?

Lesson #4 - Student Handout #3

## Field Trip Schedule

Tentative Schedule

| | |
|---|---|
| 10:00 A.M. | Arrive Capitol steps, center East Extension at the foot of steps - see map |
| 10:15-11:30 A.M. | Architecture Task/Worksheet complete |
| 11:30 A.M.-Noon | Discussion of worksheet and questions. Meet at foot of East Extension - see map |
| Noon-1:00 P.M. | Lunch |
| 1:05 P.M. | Meet at foot of East Capitol steps for guided tour of Capitol |
| 2:15 P.M. | Meet at foot of East Extension - meet Congressman _____ |
| 2:30 P.M. | Brainstorm ideas re: Lowderbaugh article; tell of homework assignment for tomorrow |

# How Public Buildings Stand on Ceremony

by TOM LOWDERBAUGH

Every town has at least one—a bank, a library, a courthouse, a town hall, a train station—some public building set off as . . . *important*. You walk down the street, turn the corner, and there it is in front of you—a building that by its very structure says, "I'm important and what happens inside me is important too!"

Like old houses, public buildings are often ignored, but they too merit our attention. These important buildings stand in public places as witnesses to our values and institutions, our collective dreams and aspirations—indeed to all the things that really matter in our society. In other words, these are buildings that *stand on ceremony*. And although we may take our public buildings for granted and not pay attention to their ceremonial statements, the buildings are ready to speak to us nonetheless.

How can you help your students hear—and understand—what our public buildings are saying? The best way is through significant detail presented in manageable units. The following questions, which draw attention to specific features of a building, can help direct your students' explorations.

## 1. Where is the building located?

Often an important public building is placed in a convenient location, close to the heart of the town, where the property values were (and maybe still are) the highest. It may even sit at the center of the grid pattern that defines so many American cities and towns.

And there are other ways location can point out that the building is special. For example, the building may sit atop a hill or a rise, or it may be surrounded by a lawn or a park, which sets it off from the rest of the town and its daily concerns. As we walk towards the building, we realize from its very apartness that we are going somewhere special. This is an atmosphere quite unlike that of ordinary commercial buildings pushed up against one another, or of houses crowded together on a block.

## 2. What is the building made of?

Not built for a season or even for a generation, these buildings are meant to *last*. As a result, they are usually made from materials like stone or steel that endure a very long time, rather than from shorter-lived materials like wood. These permanent materials are generally more expensive than the materials used for everyday buildings like houses. An air of endurance and cost helps to set public buildings apart.

## 3. What does the building make us think of?

When designing a building, an architect may ally himself with a particular tradition, recalling other buildings, young or old. The architect chooses consciously, making the connections between the buildings and their functions. The connection is direct, and it determines how the building looks and what it says about what it is and what it contains. We can see this connection only if we look closely at the building so as to discover some of its key elements.

▶ For example, some buildings make us think of *ancient Greece and Rome*. Recalling civilizations often thought of as reasonable and just, this architectural style is very popular for government buildings, perhaps because we trace our own democratic form of government back to the Greek and Roman peoples.

An architect who wants to make us think of Greece and Rome uses elements devised centuries ago in those two cities. Especially important in this style of building is the *column* as a structural element; Greco-Roman columns are usually designed according to one of the classical *orders* or styles: Ionic, Doric, or Corinthian. At one or both ends of such a building, the columns may support a triangular-shaped structure called a *pediment*, which may or may not be decorated with carvings. Sometimes the building may be topped with a *dome*, which itself may be either plain or decorated.

▶ Other buildings, on the other hand, make us think of the *Middle Ages*. These buildings recall a time popularly associated with chivalry, romance, and the grand gesture, a time of faith and mystery and adventure.

An architect who wants to make us think of the Middle Ages alludes to either one of two kinds of building symbolic of that time: cathedrals or castles. This architect's building may have *battlements*, an element originally meant to protect a warrior defending a castle. The windows and doorways may have either round or pointed (gothic) *arches*. If a building is influenced by the cathedral style of architecture, it may be supported by a set of *flying buttresses*, structural elements that support a wall by carrying its weight to a pier.

▶ Still other buildings try to impress us with their exuberance, borrowing elements from *more than one tradition* and blending these elements into something special. In America, such buildings were common in the second half of the nineteenth century, when an architect might combine design elements from different architectural styles to emphasize a building's massiveness (and thereby its importance) or just to show off various architectural possibilities.

For example, such buildings might use columns—not so much for support as for decoration—placed in groups or sets. Instead of the relatively flat façade of a building recalling Greece and Rome, this kind of building might have its façade decorated with statues or garlands. In addition, it might have a *mansard roof*, as you see illustrated. The main effect of a mansard roof (often punctuated by dormers) is to emphasize a building's massiveness. Or the stonework on the building's first floor might be *rusticated* so as to give a rough and massive effect. Buildings such as these, then, combine massiveness and exuberance to produce an impression of power and vitality.

▶ Finally, some *modern* buildings, instead of looking backwards to older traditions, place themselves firmly in the present. These buildings present themselves as up-to-date and direct without the distracting, nonfunctional decorations of earlier times. Such buildings use simple materials like stone, concrete, or glass. One reason for using walls of glass is to dissolve the traditional barrier between the inside and the outside. These modern buildings tend to be sleek and direct, relying on straight lines and right angles (instead of decoration) to make a grand impression.

Once your students have studied a public building, having looked closely so as to be able to answer the above questions, they will begin to understand some of the ways that buildings stand on ceremony. They will begin to see how ceremonial buildings declare what functions are important to a town and to its people—and how these buildings relate their own town to the rest of the world. And the next time they walk past the courthouse, the library, or the town hall, they won't dream of walking by without looking.

Lowderbaugh,Tom, "How Public Buildings Stand on Ceremony," Art To Zoo:News for Schools from the Smithsonian Institution, Dec.,1981,pp.2-3.

## The Capitol Experience in Washington, D.C.

Lesson #5

Goal: To have students gain an architectural awareness through an on-site field trip.

Objectives:
1. Identify the Classical elements of style on exterior and interior of U.S. Capitol in person.
2. Identify other elements of style not previously mentioned that are found at Capitol.
3. Add to student's knowledge of the Capitol by taking an Official Guided Tour.
4. Students personally meet Congressman_____.
5. Allow some free time for personal reflection of U.S. Capitol and grounds.

Materials: Floor plan of Capitol - handout
Extra architectural Glossary sheets

| Teacher | Student |
|---|---|
| Students and teacher meet at pre-determined time and place as noted on map. | Students arrive on time. |
| Standing in East parking lot and facing Capitol, teacher orients students to the House (left) and Senate (right) sides of the Capitol. | Look over map - orient themselves. |
| Teacher asks students to look at Capitol and identify specific elements of style. Students answer whether on House or Senate side and what level/floor of building located. Example: Where do you see pediments used on outside of building? | Students answer - pediments are over all windows on H/S sides, also on the entrance to the H/S wings. |
| Continue asking questions until you have covered all or as many of the elements as you wish. If there were any that were frequently missed on the slide review - go over these early and then repeat. | |
| Hands out inside floor plan of Capitol open to the public, reminding that the rooms are designated as either H (House) or S (Senate) side. State the task as | Students look at maps to orient themselves and acknowledge directions. |

| Teacher | Student |
| --- | --- |
| written on yesterday's handout sheet (p. ). Students mark answers on floor plan with pen or pencil. Show map with example, if necessary. | |
| Everyone check your watch... the time is now_____. We will all meet here at _____. Give 1 hour, 15 min. (time) (time) | Checks watches; notes return time - goes off. |
| Meets students when 1 hour, 15 min. have passed at previously stated location. | Arrives on time with answers. |
| Asks for volunteer group to go over their list of finds for elements of style. Others to check their own answers. Then ask for answers to second part of task - what elements they found/where - that we did not discuss. Ask for concurrence from other group. Why were these same Classical elements sed on interior? Other observations? | Students volunteer and answer. Students answer - continuance of style - repeat influence of Classical times. |
| Looking at outside of building, can you understand why the words symmetry and balance are used to describe Classical architecture? What is the evidence here? | Students answer - Ex., windows in line vertically, House Wing identical to Senate Wing on exterior. |
| Collect all papers. | Students hand in papers. |
| Dismisses group for lunch. | |
| Meets students 1:05 P.M. for tour | Students take tour. |
| Meets students at 2:15 P.M. with Congressman _____. | Students return to predetermined location to meet Congressman _____. |
| Discuss questions raised in last night's homework. Brainstrom ideas for possible answers. | Students reply. |
| Tell homework assignment for tonight. Answer the questions on Student Information sheet, and the following: Why is it easier to answer these questions now that I've been to the U.S. Capitol? There will be a total of 5 questions answered for tomorrow. | Students listen and write instructions for homework. |

## The Capitol Experience in Washington, D.C.

Lesson #6

Goal: To have students summarize their architectural and historical knowledge of the U.S. Capitol

Objective: Review field trip of previous day and all parts of unit.

Materials: Capitol Experience - architectural task/worksheet - students have
Map of Capitol Hill - students have
Magic markers/unlined notebook paper

| Teacher | Student |
|---|---|
| Teacher writes U.S. Capitol on blackboard. | |
| 1. What architectural features immediately come to your mind? i.e., these which specifically say U.S. Capitol to you. | Students reply. |
| 2. Gives paper and magic markers to those volunteers who will draw the architectural features, i.e., portico, dome, columns. Teacher places these on board. | Draw examples on paper. |
| 3. Discussion. Answer 3 questions on top of Field Trip worksheet.<br>a. Is the Capitol artistic?<br>b. Does the Capitol reflect and fit its purpose?<br>c. Does it have a clearly developed style? | Students reply. |
| 4. Why do you think classical Greek/ Roman architecture was chosen for U.S. Capitol? | Students reply. |
| 5. Do classical Greece and Rome remind you of anything in addition to architecture? What? What takes place in Capitol? Which part of government meets here? What is their function? | Students reply. Greeks/ Romans = Democracy, hopefully. |

| Teacher | Student |
| --- | --- |
| 6. From your readings, what did Thomas Jefferson/George Washington have to say about the original Capitol design? What effect would/did their opinions have on design - why? | Students reply. |
| 7. Circles word U.S. Capitol on board. Students are now asked to write what this building means to them, all aspects of the words. What does it say to you? Write about your feelings in a paragraph or two. | Students write and turn in to teacher. |

Suggestions as to how this unit could be adapted to be used with the following courses:

1. Ancient or World History Class - to show the connection and influence of Classicla Greece and Rome on later time periods in history, especially 1790-1820 in Europe and United States.

2. American History/Government Class - to show how founders of this nation drew on Classical rome and Greece , not only for political ideas, but also for architectural styles which they felt befit the nation's Capitol.

3. Latin Class - to illustrate and reflect upon the long lasting contributions of the Romans in the areas of architecture and government.

4. Photography Class - how to photograph buildings, parts of buildings, photograph specific style of architecture, to do a picture story of the Capitol and what transpires there daily. Photograph peoples' reactions to the Capitol when they first see it.

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## GLOSSARY OF ARCHITECTURAL TERMS

Ashlar - Hewn or squared stone, also masonry of such stone; a thin, dressed rectangle of stone for facing walls. also called ashlar veneer.

Baluster - An upright, often vase-shaped, support for a rail.

Balustrade - A series of balusters with a rail.

Capital - The top decorated member of a column or pilaster crowning the shaft and supporting the entablature.

Classical - Pertaining to the architecture of ancient Greece and Rome.

Column - A supporting pillar made up of a shaft, base and capital.

Corinthian Order - The most ornate of the classical Greek orders of architecture, characterized by a slender fluted column with a bell-shaped capital decorated with stylized acanthus leaves; variations of this order were extensively used by the Romans.

Cornice - In classical architecture, the upper, projecting section of an entablature; also projecting ornamental molding along the top of a building or wall.

Dentil - Teethlike projections under a cornice.

Dome - Roof formed by a series of rounded arches or vaults - hemispherical shaped.

Doric Order - The oldest and simplest of the classical Greek orders, characterized by heavy fluted columns with no base, plain saucer-shaped capitols and a bold simple cornice.

Double Hung Sash Window - A window with two sash, one above the other, arranged to slide vertically past each other.

Egg-and-Dart - A decorative molding comprised of alternating egg-shaped and dart-shaped motifs.

Entablature - In classical architecture, the part of a structure between the column capital and the roof or pediment; comprised of the architrave, frieze and cornice.

Fluted - Having regularly spaced vertical, parallel grooves or flutes, as on the shaft of a column, pilaster or other surface.

Frieze - That part of an entablature sometimes enriched with sculpture.

Gables - The triangular wall segments at the end of a double-pitch or gable roof.

Gallery - A roofed promenade, colonnade or corridor; an outdoor balcony; in the South, a porch or veranda.

Greek Key - Continuous design.

Guilloche - Continuous ornamental design of flowers, stars, leaves, etc., usually carved into the building.

Ionic Order - An order of classical Greek architecture, characterized by a capital with two opposed volutes.

Keystone Arch - Central or topmost stone which keeps the others in place.

Lantern - A structure built on the top of a roof with open or windowed walls.

Lintel - A horizontal member spanning an opening to carry a superstructure.

Modillion - An ornamental bracket or console used in series under the cornice of the Corinthian and other orders.

Order - Any of several specific styles of classical and Renaissance architecture characterized by the type of column used (e.g., Doric, Ionic, Corinthian, Composite, Tuscan).

Tobacco Column - American design, use of tobacco leaves on capital by Benjamin Latrobe.

Corn Column - American design, use of corn cob on capital.

Pediment - A wide, low-pitched gable surmounting the facade of a building in a classical style; also, any similar triangular crowning element used over doors, windows and niches.

Pilaster - A shallow pier attached to a wall; often decorated to resemble a classical column.

Portico - A major porch, usually with a pedimented roof supported by classical columns.

Rotunda - Round building, hall or room, especially one with a dome.

Rustication - Masonry cut in massive blocks separated from each other by deep joints.

Vault - An arched ceiling of masonry.